THE

Practice of Physick,

Reduc'd to the ancient Way of

OBSERVATIONS

Containing a just Parallel between the

Wisdom and Experience of the Ancients,

And the Hypothesis's of

Modern Physicians.

Intermix'd with many

Practical Remarks upon most Distempers

Together with Several

New and Curious Differtations;

Particularly of the

TARANTULA,

And the Nature of its Poison:

Of the Use and Abuse of Blistering Plasters:
Of Epidemical Apoplexies, &c.

Written in Latin, by GEO. BAGLIVI, M.D. Professor of Physick and Anatomy at Rome.

The Second Chition.

DONDON:

Printed for D. MIDWINTER, B. LINTON, G. STRAHAN, J. ROUND, W. TAYLOR, J. OSBORN, and J. CLARK. MDCC XXIII. Senda Pouls I

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Author's Preface.

O form a right Judgment of Difeases, is a very difficult Matter. The Science which teaches us to surmount that Difficulty, is the Subject of this Performance:

And indeed, if we consider, that nothing is so conducive to the Perfection of this Science, as Experience, we can't think it strange, that the neglecting or misapplying of Experience, has so far multiplied the Number of Errors that over-run Physick in the Age we live in. Having lately finish'd the course of my Studies at Naples, and travel'd all along the Sea-coast of Dalmatia, I was fond of nothing so much as visiting the Schools of Italy, and trying what pass they had brought the Practice of Physick to, after so great a Noise of New Discoveries. But upon a diligent Survey of 'em all, I found Physick unspeakably born down and ruin'd with the

licentiousness of Opinion, and my Countrymen strangely degenerate from their primi-

tive Wildom.

For in some Universities I found they had fuch an invincible Aversion to the Opinions of the Ancients, that they thought it a piece of Meanness and Disparagement, to spend either Time or Pains in peruling the Writings of the Galenists. Upon this Apprehension, they tortur'd and rack'd their Wits. to invent some new and unheard of thing; and if they did but light on any fuch Bufiness, they glory'd in the Invention, and plac'd a Pride in thus ferving the Republick of Phylick. In other Universities I found em fo religiously devoted to the Theorems of the Ancients, that they incessantly attack'd even the excellent and useful Discoveries of Modern Authors; and throwing all Diseases into one Mould, admitted of no other means of Cure, but Bleeding, Purging and Blistering. Nay, in all of em, there was nothing to be seen, but eternal Wrangling among the Professors of Physick; and either an indifcreet forwardness for the minting of Novelties, or a stubborn Bigotry in adhering to false Opinions that maintain'd their Ground by Anticipation: And, which is worst of all, these Professors aspers'd and expos'd their Mother Science and the Mistress of their Studies, as being an uncertain luggle; and that not only in their private

Interviews, but openly and in Books exposed to publick View. So great is the Confequence of this their Indifcretion, and so heavy is the Detriment that accrues from thence, both to Physick itself and the Professors of it, that this Prince of Sciences, which was always esteem'd by Persons of the highest Dignity, and Rul'd even Kingsthemselves with a sovereign Sway, is now despised in many Places, and sorced to yield a precedency to the meanest and even the

most pernicious Arts. The many

Being thus furrounded with an infinite variety of Opinions, I was at a loss to make a just choice; but at last I came to a firm Resolution of fiding with none, and of purfuing the Truth with Vigour and Diligence. without any other Guide but Reason and Experience. In pursuance of this Resolve. I spent no small time in taking exact and minute Observations of Diseases; and was quickly fentible that by this means I made a greater Progress in Physick in a few Months, than I had done before in fo many Years; and that nothing is truer than that old Saying of Manilius; Artem Experientia fecit, Exemplo monstrante viam. These Remarks of mine were first carelelly committed to Writing, only for the fake of my own Memory; afterwards I drew 'em out into Classes and Heads, and in that Condition they came into the Hands of my Friends,

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who

who thereupon press'd me very earnestly to publish 'em. For my own part, I was fo conscious of my own Insufficiency, and so fensible, that a Physician unguarded with the Authority of Grey Hairs and advanced Years, is commonly despis'd; these Considerations. I fay, had so much influence upon that I had fully refolved to deny their Requelt, and stand the shocks of even Violence itself: But at last my Reluctancy was overcome by the Authority and Weight of many of the greatest Men, whose Names I here forbear to mention, for fear of undergoing the Censure of Ostentation and Vainglory. Twill be fufficient, fure, to mention only four of 'em, who are Men beyond the reach of Exception, and in whose Tefrimony the World will readily confide: I mean, the Learned and Reverend Prelate Ferdinandus Nuzzius, a Man of unparallel'd Merit, and born for greater Things: Luke Tozzius, present Physician to his Holiness, and a Person of noted Excellency: The Reverend Father Valla, Apostolical Preacher of the Jesuits, who goes as far beyond Laurentius, as a consummate Knowledge of Divine and Humane Things is above Grammar: And Paul Stufa, the Abbot, diftinguish'd not only by his Noble Birth, but by a familiar acquaintedness with Greek and Latin Letters, and a thorough-pac'd Knowledge of the Law.

Before

Before I take leave, I have one Request to make to the Reader, That he'd vouchfafe to pardon my troublesome and almost impertinent Zeal, in recommending and inforcing the necessity of imitating Nature and Experience, and in expoling the Vanity of Hypothesis's and Systems. For in bewailing the deplorable Calamity of the Profession. I thought it necessary, since I could not argue nimbly, at least to inculcate with a pathetick and repeated Regret, the only Remedy that's left. For fince the whole Plot of Phylick lies in collating Difease with Difeafe, Time with Time, and Man with Man; fince it lies in distinguishing the imminent and growing Symptoms with peculiar Signs and Names, and allotting em proper and feafonable Remedies; queftionless we can't do better Service, both for the Imbellishment of our Profession, and the Health of Mankind, than to influence the Students of our most Noble Science, to have an attentive regard to the Observations, made by our Ancestors in the earlier Days of Antiquity, and be careful in forming new ones of their own. Had this course been constantly pursued from the Age of Hippocrates, down to the Age we live in, the Progress and Improvement of Physick had been unspeakable by this time. How that necessary and handsome Method, so happily begun by our Ancestors, has been since difcontinued.

continued and chang'd for Disputes and idle Logomachies; I can align no other Reason but the just Judgment of God. Who can think otherwise, that does but cast his Eyes on the state of Things in these our Days? Days, in which all other Sciences and Arts not only fhine in their primitive Splendor, but receive additional Imbellishments every Hour; while the Practice of Physick alone. by I know not what fatal Mischance, lies most of it in the Dust; and, which is yet more grating, grows every Day meaner and more despicable in the Eyes of the unlearned Vulgar. This growing Contempt. I take it, is chiefly owing to the Phylicians, their despiting the Observations upon which the Noble Science is rear'd, and addicting themfelves intirely to Systems and Hypothesis's; their being fo follicitous, not fo much to difcern and cure Difeases, as to assign 'em handsome and specious Reasons; by which means it comes to pass, that to the infinite difgrace of Physick, and the irrepairable detriment of Mankind, they take their Meafures, not from the fafe and certain Rules of the Art, but from the Whims of their own Brain.

In the mean time, I would not have any one imagine, that I fet about this Work with a prospect of Vainglory, and a design of purchasing the noisy Applause of the World: For there's nothing I study so much

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Decoys of this Life, by keeping in view the instability of mortal Things, and the certainty of eternal Life,

Nullis nota Quiritibus
Ætas, per tacitum fluat,
Sic, cum transierint mei,
Nullo cum strepitu, dies,
Plebeius moriar Senex,
Illi mors gravis incubat,
Qui notus nimis omnibus,
Ignotus moritur sibi.

Senec. Trag. Thyaft. Act. 2.

The only Inducement I had to undertake this Province, was the love of Truth, and a defire of promoting the Publick Good. I leave it to the Judgment of the Wise and the Good, to determine what Service I have here done. For my own part, 'tis sufficient that what I am able to perform, is confecrated to the Publick Good, and in a particular manner to the Benefit and Safety of the Citizens of Rome.

Rome, Febr. 29. 1696.

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THE

CONTENTS

BOOK I.

	STATE OF THE PARTY
Ohan all particular	To SOL
Chap. 1. F the absolute nec	ellus of An-
fervations in	the way of
fervations in Physick,	Page
Chan - The Oct 1 1 2 7	7 4801
Chap. 2. The Original, the Progr	
certain Part of Physick, are or	ving for the
most part to Observations.	
Chan a Och to tong distribution of the	1. 2. 1. 1.
Chap. 3. Of the Impediments that	
to slackened the Diligence of 1	bysicians in
making Observations. Chap. 4. Imped. 1. The Derision	D. 15
Chan A Imped y The Davillon	of Ancient
Diago.	of Amient
Toylicians.	p. 18
Physicians. Chap. 5. Imped. 2. The false Id	dols of Phy-
ficians, or the Prejudice of fal	le Ovinions.
	, opinions
CL COLO FIG COL	p. 22
Chap. 6. Obst. 3. False Simile's	, or a falle
fort of Analogies.	D. 22
Chap. 7. Obst. 4. The Preposter	ous reading
Books A The Preparet	ous remains
of Books.	p. 38
	Chap. 8.

The Contents.

Chap. 8. Obft. 5. The prepofterous In	
tation of Books, and the pernicious	Custom
of making Systems. Chap. 9. Obst. 6. The discontinuing	p. 51
Chap. 9. Obst. 6. The discontinuing	of the
Apporifical Way of treating Di	CONTROL S. AND THE ACCUSAGE SERVICE
Of Fevers in general.	P- 59
Of the Worms in Children	p. 67
Of the Small-Pox and the Meafles.	P. 75
Of the Colick.	p. 78
Of a Frenzy.	p. 82
Of an Asthma.	p. 84
Of a Diarrhaa, and a Dysentery.	p. 86
Of an Apoplexy. Of Pain in general, of Convulsion	p. 90
Convulfive Motions.	p. 93
Of a Cough.	P- 97
Of the Stone and the Gout.	D. 90
Chap. 10. Of the various Ages and I of Physick. Chap. 11. Of the Sources of Theory at	rogress
of Phylick.	p. 106
Chies.	p. 112
Chap, 12. A Method propos'd to you	mo Bo-
Chap. 12. A Method propos'd to you ginners, of forming a just Hypot Diseases.	besis of
	Marie Marie Control (Marie Marie Mar
Chap. 13. The great Importance of e	
ing Precepts, or certain and conftan	AND DESCRIPTION OF THE PARTY OF
to be made use of as a Standard, by	
Diseases.	p. 137
	131

The Contents.

Chap. 14. Of the Cure of the Diseases of the Mind; and the Method for giving their History.

Chap. 15. An Exhortation to Physicians, to find out and establish a Method of Cure, calculated in particular for their respective Countrymen: With some passing Hints upon the Nature of the Air of Rome, and the Cure of the Diseases in that City. p. 172

BOOK, II.

Chap. 1. Br way of Introduction, p. 187.

Chap. 2. Setting forth some of the principal Causes that have hitherto retarded the History of Diseases, or the Medicina Prima.

D. 192.

Chap. 3. Containing Rules for contriving and promoting the History of Diseases, and deducing from thence Practical Aphorisms.

Chap. 4. Of the Erecting of Colleges for the Improvement of Practice.

P. 200.

P. 200.

Chap. 5. Containing a Solution of the Arguments that may be offer'd to the contrary.

Chap. 6. A Specimen of the History of Diseases: Containing a Description of the Gout, and its Practical Apporisms.

p. 219.

An

The Contents!

An Article of Practical Apporisms, drawn from the first History of the Gout. p. 299 Chap. 7. A Monitory Schedule of such things as are wanting in our Profession. p. 243 Chap. 8. Of the Diagnosticks of Diseases, and the Springs from which they flow. p. 246 Chap. 9. Of the Causes of Diseases. p. 252 Sect. 1. Some Preliminaries calculated for the History and the Division of Causes. Sect. 2. Of the Antecedent Caufes, Procatarctica and Proegumena. p. 258 Sect. 3. Of the immediate Cause of Diseafes, and the chief Heads that serve to discover it. p. 265 Chap. 10. Of the right way to form Indicap. 282 tions. Chap. 11. Of Specifick Remedies, and their History. Chap. 12. A Centaur, or a View of the Paradoxes of Modern Physicians, in deriding Crisis's, Critical Days, &c.



ion, b. M. Defrickion of the District and

oct ou

EEE . 17

CEE OF

The Contents.

A Differentian of the Anatomy, Bitings, and other Effects of the Venomous Spider, call'd, Tarantula.

HE Preface to the Reader. Chap. 1. The Etymology of the Name, and the feveral Sorts of Tarantula's. p.314 Chap, a. Of the Nature and Situation of those Countries in which the Tarantula is bred. Chap. 3. The Anatomy of the Tarantula. Chap. 4. A Description of the Seed-Vessels, the Egg, and the Generation of the Tarantula: With some occasional Remarks on the Eggs of Oxfers, and on Seed in general. p. 322 Chap. 3. Of the Bitings of the Tarantula. p. 326 Chap. 6. A Description of the Diseases and Symptoms that ensue upon the Bite of the Tarantula. p. 329 Chap. 7. A farther Explication of the other Symptoms, and their Analogy with other Diseases. p. 332 Chap. 8. Of the Cure of the Sting of the Tasantula, and of the evil Effects it producetb. P. 339 Chap. 9.

The Contents.

Chap. 9. Dancing and Mussek are the principal Antidote for this Poison; where, by the way, a Description is given of the Manner of Dancing, so usual in Apulia. p. 343
Chap. 10. Some other Things belonging to this Exercise, are briefly considered. p. 347
Chap. 11. Several Histories of Persons stung with the Tarantula. p. 353
Hist. 5. Of the Virtue of the Lapis Indicus or Indian Stone, commonly called Serpentinus, against the Stings of Scorpions p. 356
Chap. 12. Some things proposed by way of Doubt, concerning the genuine Nature of this Poison.

Chap. 13. A brief Enquiry into the Essess of Musick, in this and other Diseases. p. 368

DISSERTATION II

Of the Use and Abuse of Blistering-Plasters.

THE Preface to the Reader. p. 374
Chap. 1. Some Experiments of the
Effects of the Cantharides. p. 376
Chap. 2. Of the inconveniences attending the
use of Blistering-Plasters. p. 383
Chap. 3. Of the Advantages redounding from
the Use of Blistering-Plasters. p. 390
Chap. 4

he Contents

Chap. 4. The Nature of Blistering Medicines is evidently demonstrated from the Meabanick Dollring of the Stimuli. P. 400

DISSERTATION III

Containing feveral Anatomical and Practical Observations.

Collection of Experiments made by the Art of Infusion, upon living Animals.

P. 412 Of the Circulation of the Blood in a Frog.

The History of the Sickness of Marcellus Malpighithe Pope's Physician, with an Account of the Diffection of his Corps. P.425 Diffection of the Corps. In Appendix of the Apoplexies that were almost Epidemical, in 1694, and 1695, at Rome, and all over Italy. P. 429





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decide be committed the name of Phylician is the Minister and Inte preter of Nature | let him contrive or do what he will, unless he obeys Nature, he cannot govern her: For the Springs and Caufes of Difeafes

lie far beyond the reach of humane Reason; and oftentimes Nature commences a new Work, when our Efforts are at an end order of the month of

to the Expendenced Philolophy of this Arewith order to contain the publick Goods by

The Practice of Physick:

of long standing, compasses the most fovereign way of curing Men; especially if to these Qualifications it adds the Reading of Books. But unless it be very cautious in the perusal of Books, its to be fear d that what is proposed for the improvement of Knowledge and Learning, may furnish fresh occasions of Error.

· III

Hippocrates, the Prince of Phylicians, fpeaks in the Words of Nature, rather than those of Man. His Perfection in the way of Phylick was fuch, that the Ages of Antiquity have not produc'd his Equal, and in fucceeding Ages he will not be perallel'd unless Physicians return to their Understanding, and being rous'd, as it were, from a deep Sleep, perceive what a vast difference there is between the Historical and Masculine Physick of the Greciums, and the speculative forry Advances of later Upstarts; unless they give less Credit to imaginary Opinions, and conclude, that Medicine ought not to be confin'd to the narrow Limits of our Reafon; but, on the contrary, eight to be recall'd from their Streights, to the open field of Nature of July 10 20 Marrie, he cannot got on here For

on Assessment and Original of Differences

Whatever it is that distinguishes the modern Theory from the ancient Ignorance, tis all owing to the Experimental Philosophy of this Age. But in order to enlarge the publick Good, by

vertue of the Labours of private Men; the Men of this Age ought to use their utmost Efforts in the same way to arrive at a perfect Knowledge of Practice, which is the capital Thing of the whole Art. By this means, we shall not only lay aside the Opinions and Prejudices that have been long settled in our Minds, but likewise carry the Art of Medicine, from a state of Infancy and Ignorance, to an adult and wise Constitution.

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The Moderns should not be opposed to the Ancients: but united with them, by a perpetual League, as much as may be . For what can be more indiscreet, than to make 'em disagree in Words, when they agree upon the Matter? 'Tis ftrange, how much this Lechery of coining new Words, retards a young Student in the midst of a successful Progress, and clouds his Notions, The Difference ariling from a prospect of Equivocal Words, makes him oftentimes doubt where he is, or which Course he should take in the Cure of Difeales: Nay, oftentimes he falls foul upon fome Mistake, and either Deceives or is Deceived under the appearance of Truth or Probability. As for the fick Patients, they are not concern'd, whether you call the Effects of Difeases and the Principles of an animate Body, by the simple and unpolite Names of the Ancients, provided you are perfectly well vers'd in the true Methods of Cure, and can make your Words pals into Deeds, and the Event answerable to your Pro-

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There's nothing that takes the Mind more off from the Knowledge of Diseases, than the boundless pursuit of Speculation and Disputes, that the Arabian Physicians, and the Galenists that came after 'em; have so licentiously Encourag'd even in the Practice it self. They over-look d the fertile and far extended Fields of Nature, where such eminent Genius's might have had a freer range, and chose rather to throw themselves among the Thorns and Tristes of the Dialecticks; in which, being long entangled, they never rais'd their Mind to the hopes of new Inventions.

Words, a ban charger all Your cho before the

west trained to wisher their militar work of their Physick, is not the effect of human Invention; but the product of Time: For what the Ancients once believ'd of Divination, may justly be faid of it, viz. that it forung from such things as long use had approv'd. It may be defin'd thus: A Faculty apprehending and perceiving the feveral Kinds of Diseases, and explaining them by such things as if has observ'd and taken notice of for a long tract of Time, as being Signs of the Event; and exhibiting Remedies against 'em, not in persuance of any probable Hypothesis, but according to the prescriptions of the Divine Art, warranted by frequent use. If this way of Curing be compar'd with the Splendour, Height and Magnificence of the Hypothetick Way, it will perhaps appear mean and even contemptible. But after all, the other has nothing that's Healthy or Vital; but only a wonderful Luxuriancy of Branches and Trees, which indeed are lovely to the the Sight, but presently sade, as soon as the luster of Novelty has sorsaken em. But this we now speak of, does not consist of Fictitious and Fabulous Things; it does not propose to it self Ostentation or vain Glory, but pursues only the true solid Glory, that lies in recovering the Health of Men; tis not Calculated for making a shew of its Flowers, but for bringing forth great plenty of the most pleasant Fruits; so that it enlarges its growth ever day, and acquires new Vigour in its progress.

the Changies of Dimit and the Vertice of

led cines, and to try their Properties. In the Thefe Men freak Prudently and Confiderately. who affert, that that part of our Science, which lays too great stress upon Speculations, has no true proper Relation to the Art of Phylick: For the Art is made up of fuch things as are fully furvey'd, and plainly Understood, and of such perceptions as are not under the controll of Opinion. It gives certain Reasons which are placed in due Order, and chalks out certain Paths, to keep its Sons from going aftray. Now what is more uncertain than the Hypothefes, that ar this day we take fo much delight in? Have they any thing elfe, for the most part, than meer Conjectures, which by their Similitude lead us to various and fometimes contrary Conclusions. The Excellent Art, which owes its Birth to a diligent, accurate, and judicious Observation of Nature, does not confift in the keenness of human Reason; but ought rather to be call'd, the Wisdom that's heap'd up in the various Labours of the Learned of all Ages, and the Judgments of many Men winded up as 'twere into one.

Noted and Allen Chr. Shorthing we

Aid amoid AFL-to Twould be equally redious and unnecessary, to relate the many and great Mischiefs that have accru'd to Physick, from the ardent and eager purfuit of new Hypothefes. I shall only instance in two things: In the first place, the most pregnant Genius's, when once rainted with these learned and ingenious Fables, are for the most part not only unwilling, but afham'd to condescend to the groffer pieces of Knowledge; I mean to observe the Qualities of Discases, and the Vertues of Med'cines, and to try their Properties. In the next place, those Students who are posses'd with these feign'd and sabulous Opinions, make them to familiar by use and diligence, that afterwards in practifing Physick, they make use of 'em not for Probabilities, as they did at first, but as certain,

We have hitherto bestow'd too much pains upon the Ingenious Hypothesis's of the Physicks, and the fubrile Divisions and Definitions of Logick. The our Art is illustrated by these, it does not depend upon em. Nature is its own Master, and lies more extended than to be confin'd within certain bounds prescrib'd by our scanty Reason. Corporcal Things are govern'd by an admirable eternal and constant Rule. So that if we mean really to do Mankind Service, and not to put up on em, we must of necessity have Nature's Laws in our View, meditate and make our Observations upon em, and Obey them to a nicety.

for ther belongsite Parent underlind ther

Queen Realon, mar is plac'd above all the reli-Twas not Vanity, or an Irch after popular Fame, that moved me to publish this little Piece but a defign of pointing out the Road, and in fome measure fortifying it to many of my Equals, that are wandering up and down. I am not Ignorant that many will Centure the Performance. fuch as ris Some will Ridicule me for being daub'd over with Galenical Filth, and cry out that I have return'd like a Dog to the Vomit, and like a Hog to the Puddle. Others will brand me for an Empirick; or at least will charge me with Confidence and Precipitancy, in offering to make head against the unanimous Consent of all the Moderns. But the love of Truth, which from my Infancy has ever accompany d me, and the advantage of promoting the publick Good, has inspir'd me with a contempt of these and such like Objections. For I should have been asham'd, if that Ancient Maxim, Utilitate hominum nil debet esse homini Antiquins, should have more influence upon the Heathen Sages, than upon a Christian Philosopher.

Mill-me

Those who oppose Reason to Experience, whether Empiricks or Rational Physicians, scem to me to be all Mad: For how can we make Reafon to act all the Parts of a Science, that, as all wife Men ought to acknowledge, is acquired by Tryal and Use continu'd thro' a long progress of Time? And, on the other hand, why should Experience be only regarded, and Reason rum'd out of doors ? Here, by Reason, I do not mean that Power of the Mind, which hunts after the obfure

obscure Parts of Nature, and is call'd Invention; for that belongs to Physicks. I understand that Queen Reason, that is plac'd above all the rest, by which a Physician looks into the Principles and Causes of Diseases, foretells their progress and event, and gathers Futurities from what's present. Pray God these Controversies and Disputes among Physicians may, for the great interest of Mankind, especially of Christendom, be laid aside; so that Physick, which for so many Ages has been miserably toss'd, may repose in the quiet harbour of Tranquility and Concord in the quiet harbour of Tranquility and Concord

with Confidence and Lecipitance in chering to make head again 11 a. A. A. Ho C. Couent of all

The Original, the Progress, and the certain Part of Physick, are owing for the most part to Observations, and in an included and bridged on the control of the most part to Observations.

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December of Physick, and Experience brought it to Perfection of In its Infancy 'twas gross and stupid; but in the progress of Time, by the daily accession of new Observations, which mutually illustrated one another, and especially by the Light of Reason, which over-rul'd and moderated all, its became Liberal and Learned.

wite. Men ought to ac nawledge. In

The old Proverb, Lapides ad filum, son were filum ad lapides regere, may be partly apply d to the Physicians, who ought to model all their Reafonings,

fonings, which are as 'twere the Stones with which Medicine is built, according to the Thread or Line of created Things; for fince the Line of Objects, which God has immurably firetch'd thro the World, can't be bow'd or flack'd fo as to be adapted to our Fallacies, tis necessary that the Ratiocination of Men should yield and be directed by this Line day covered to the in the day of We are: and III ever will ber before unforgue

of the mitume fullely Terror of the coldess The two chief Pillars of Phylick are Reafor and Observation: But Observation is the Thread to which Reason must point. Every Disease has not a fictitious, but a certain and peculiar Nature. as well as certain and peculiar Principles, Increase, State and Declination. Now, as all these are brought about independently of the Mind, fo in tracing their Nature we have no occasion for a fubtile and difguis d way of Difputing, but only for a repeated and diligent Observation of what happens to the feveral fick Perfons, and fuch an acuteness of Mind as is conformable and obediend to Nature's Meafures, Amont now all and

ines in configuration of these min'd Mericus, Thank Wile, will markellly ap-

car, it we allow Marre to see of ther on a se-It happens not unfrequently that the Event does not answer the Physician's Expediation; tho supported by Reason and Experience; and that, not out of any defect in the Rules of this excellent Art; but either from the multiplicity and the almost incredible Number of concurring Causes, both Internal and External, or rather from the Negligence and Mistakes of the Patient, Murles or Phylician, in a faulty regulation of the Circumstances of the Cure.

socially thick are at twee the Stone with

Many ascribe all to Reason, and nothing to Experience; and many again are on the opposite fide. Now both fides are lequally Criminal; whence forung to many Divisions among Phyficians, and fuch jarrings between the Theory and Practice. We are, and for ever will be, ignorant of the minute subtile Texture of the solid as well as the fluid parts of a living Body, which is altogether out of the reach not only of our Senses, but even of Reason, Experience like wife, unconducted by Reason, is oftentimes fallacious: For which cause they will equally prove ources of Error, unless they mutually illustrate one another to the state of the land to the state of on We made their old and in the

with the limits but study

Tho we are alrogether ignorant, wherein the diforder of every Part and the Nature of every Difease consists; yet we observe that each of em has its own form, i. e. certain measures of De creafing and Increafing, or constant and determin'd Periods. That tis fo, will manifestly appear, if we allow Nature to act of her own accord, and do not interrupt her by improper Administrations. When it happens otherwise, cis the Method of Cure and not Nature that causes it. For two Patients feiz'd with a Plurific, (for instance) and treated different ways, by two different Physicians, will likewise have different Symptoms: So that if there be an Error in the Method of Cure, the Physician, and not the Difeafe, will be the Author of many Symptoms.

VIL

If we compare Hippocrates's Aphorisms, Prognosticks, O'c. with the Observations of later Authors, we shall plainly see that the Nature of Diseases is the same now as it was in the former Ages, and that their Periods observe the same order as formerly. From all these Premisses we may justly conclude, That Physick is not so un-certain, nor grounded upon such a slight Foundation, as tis commonly thought; but built upon certain Rules, confirm'd by repeated Experience: For the Observations which make the princip part of the Art, have the human Body for their Subject; the Motions of which whether Natural or Sickly, have a stable Spring, and regular and constant Periods: So that the Advances of Medicine, being grounded upon such Observations, cannot but be certain and perpetual.

VIII

- Hippocrates being fully sensible of this, made it his whole Buliness to make just and diligent Observations; by the affishance of which he diffcoverd, that Diseases have some constant and peculiar, or individual Affections, and fome adventitious and common to others. The confrant fort depend upon the very individual and constant Nature of the Disease. The Adventitious spring either from the various Methods of Cure, or from the manifold and various Concourse of Causes. The first of these up in Aphorisms and Precepts, as being the Rules of the Art. The others he would not own for Precepts; but at the same time thought em not Contemptible, and left 'em to the Judgment of a good Man, i. e. an acute and prudent Phylician.

1X

These constant Qualities, which might be call'd the Characteristick Signs of Diseases, are sometimes manifest and obvious to our Senses, and sometimes obscure, and such as we can hardly assign a probable Reason for. But let them be of what Nature soever, a Physician ought not to contemn them, but to mark em down faithfully with the same very Simplicity that they appear in. For as Indications of Cure are drawn from the least Circumstance, so all the minute, and even the obscure Motions of Diseases ought to be trac'd and described. By this Means, we shall have not only an absolute and perfect History of Diseases; but even the Method of Cure, which is of greater Moment.

X.

Twere tedious to recount all the obscure Motions that use to be observed in the curing of Discases: But to set the matter in a clearer Light, we shall take notice of a few. To this Class belongs the Doctrine of Critical Days, or of the despumation of the morbifick Matter, perfected in a determin'd Time of a Fever; importing that acute Difeafes terminate luckily in an odd Number of Days, and fatally in an even Number; and that Chronical Distempers terminate in an even Number, both of Days and Months, as the Ancients observ'd. Of the same kind are the occult Permutations, of Difeafes among themfelves, their Translation to one part rather than another, and the occult confent of Parts among themselves. Some secret Consent or Sympathy

is observed between the Legs and the Breast, and between the Breast and the Privities. Inveterate Ulcers, Cauteries, and other Diforders of the Legs unfeafonably or imprudently Cur'd, turn to pernicious Diforders of the Breaft, as it appears from daily Experience. In the Diseases of the Breaft, Diureticks and Washes for the Feet are useful, and Purgatives are commonly prejudicial. We have feen all the Pleuretick Patients recover. that are feiz'd with a pain and subsequent suppuration in the inner parts of the Ear. Intermitting Fevers, that yield to no Digestives, Solutives or Febrifuga, are frequently Curd very happily by Bleeding in the Salvatella. A dry Cough is taken off by a violent Pain falling upon the Testicles. Conf. 2. Epid. Sect. 5. When the Telticle fwells by a Cough, it recalls the Memory of the Society of the Breaft, Dugs, Tefficles, and the Organs of Voice. Conf. 2. Epid. Sect.1, If a Cough follows upon an Inflamation of the Testicles, the Inflamation ceases, and e contra. Conf. 2. Epid. Sect. 1. A Dropfie of the Breast influes upon the Discussion of a Hydrocele, Mear, Obs. Med. When Sneezing precedes or follows Diseases of the Lungs, 'tis an ill Omen. Conf. 2. Epid. Cap. 9. Some periods of Diseases have likewise somewhar of a fecret Sympathy, as well as the Exacerbations that reruth at fet Hours, pursuant to the Observations we have made in several Pains, as well as in Fevers and feveral other Difeafes.

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When the Modern Physicians hear of these and a great many other things of the like Nature, they Laugh at 'em; and when they observe them, they Slight 'em, to the great prejudice of their

Patients. Many things that furpals our Comprehension are nor to be contemn'd, but 'twould be a peice of Wifdom, while we cannot canvals their true Nature by Reafoning, diligently to and from thence to form Precepts in order to Practice. For when the Human Reafon Despairs or is not sufficient for the unravelling of Difficulties, it uses to walte it felf in giving a probable Reason for 'em, and spend its strength upon Superfluous Things: Or, to speak in the Words of Sir Franc. Bac. Fol. 293. When once Men despair of finding the Truth, every thing about " 'em Languishes; whence it comes to pass that " they rather turn afide to pleafant Disputations, and some superficial Views of things, than stand up in the way of a fevere Enquiry". When Reafon therefore is Blind in fuch difficult Matters. we ought to make Observations, and propose em to the Reader without any Difguiles of Speculation; as Asclepiadorns in former times is said to have Painted happily without Colours.

XII.

From what has been faid, tis manifest, that not only the Original of Medicine, but whatever solid Knowledge tis entituled to; is chiefly derived from Experience. As for the peculiar Cure of any Disease, as I take it, it will seldom succeed well, unless Reason be joined to Observation: For the innumerable Causes of Diseases, the various Temperaments of Patients, the difference of Age, Sex, way of Living and Climate, the various Seasons of Years, and an infinity of other things that concurr towards the production or removal of Diseases; these, I say,

do oftentimes fo perplex and disturb the certain and constant Nature of the Disease and its Symptoms, that its a hard matter to trace the Truth, uses the Complexion of them all be weigh d and illustrated by a disrecet use of Reason.

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Of the Impediments that have hitherto flackened the Diligence of Physicians, in making Observations.

SECT. T.

OUppoling the foregoing advances to be true, or at least likely; It remains now to enquire into the Caules, that have hinder'd the Practice of Physick to arrive at its due maturity and p fection by the means of such a pursuit of Obfervations. As I take it, the chief Impediments that have flacken'd the Diligence of Physicians in making Observations, and by consequence have retarded the progress of the Practice it felf, are thefe. The false Idols of Phylicians, or th possession of false Opinions. A false kind of Analogies or faulty Similitudes. The pr rous reading of Books, and the fatal Itch of making Systems: And the Intermitting of the Aphoriftical Way of treating Difeases. To see this matter in a clearer Light, we shall examine each of these Heads in peculiar Chapters, Severat other Causes might be added to these above-mention'd, particularly the preposterous Methods of reaching Sciences: For fince our Mind, when difengaged from preconceived Opinions, is first

of all subjected to our Preceptors, if it happens that they proceed Immethodically, or are tainted with Errors, or are dull injudicious Men; all these Infirmities being transfus'd to us, are so deeply rooted in our Minds that their Impression can never be defac'd, unless we be directed by the best Teachers or by Experience it self to the right way of Truth, and fo unlearn all such things as have been the first and chiefest source of our Errors. Of the Linjudiniants. II. have his best has

Difference of Phylicians in the Our innate Temperaments do oftentimes oblige us to embrace Error, and make false Judgments of Things. Besides the Authority of Galen in his Book, Quod animi mores corporis temperiem sequantur; daily experience vouches for this Truth: Many Men otherwise Sagacious and Learned are inflav'd to some Opinions, the falfity of which is obvious to the most ignorant: Being drawn upon 'em by a natural byass of their Mind, they not only take 'em to be certain, but even cannot be took off from em by the most evident Reasons. This is manifest in the practice of some Physicians: One that is naturally Timorous and Melancholick, or Possess'd, as the saying is, of a frigid and humid Temperament, do's by the natural Habit of his Mind avoid Spirituous Volatile Med'cines, or fuch as operate with a forcible Motion; and attempts to cure all Diseases by fuch Remedies as are Moistening, Refrigerateing apt to pacifie the Humours, and, in a word, that are less Active. On the other hand, a Phyfician of a hot bilious, fierce or impatient Tem-. perament, neglects the gentler and cooling Med'cines, and infifts upon Volatile Spirituous Remedies, Aromatick Alcali's, Iron, Fire, Veficatories.

perate with the greatest force and activity. Now as their natural Inclination makes em prefer one fort of Med'cines to another; so it recommends to em some Precepts and Opinions rather than others, and sometimes this their Inclination is the standard by which they judge of Sciences. Wherefore if they do not take care to check that Inclination by attentive Meditation, and know how to make right Reason a directory for the inward Motions of their Constitution, they will be very obnoxious to the abovemention'd Errors and several others.

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Among the fources of innumerable and pernicious Errors, this is not the least, that Men give more Credit to the useless Comments of their own Brains, than to Observation and the Cautions of Nature. And indeed while I confider that Nature is not subject to our controul, and that the performs her Motions in fo occult a manner, that they can never be so easily trac'd as by Observation, and Reason retaining to Obfervation: And on the other hand, that Men talk of her as 'twere at pleasure by a certain impulse of the Mind; while I have these Confiderations in View, I do not think it strange that false Conclusions ensue thereupon; and that the Cure of Diseases, grounded upon such Conclusions, do's not answer Expectation; but I wonder that the Errors fpringing from them should be attributed to the inconstancy and incertainty of the Art, and not to these preposterous ways of Argumentation and Speculation. By this means it came to pass, that at this day many charge Phylick with uncertainty, others deride the Doctrine of Prognosticks, others prefcribe Remedies in a tumultuary promifcuous way at any time of the Difeate, observing no Rules for Concoction or Crisis: a great many flight the Ancients, and give too much Credit to the Moderns, and a great many give no Credit to either. While they will not subject their own Humility to the Humility and Simplicity of Nature: but from judgments of her Effects by arrogant Theories, and imitate her by a fort of Teft: tis no wonder that being thus prepofieft with Errors, relating to the Cure of Diseases, they do not Kill, but Nourish 'em, and rather exchange than stifle 'em. These and a great many other Impediments of the Practice of Phylick might be drawn up; but I purposely wave em, left this Treatife flould prove bulky and tedious to the Reader. Twill fuffice therefore to take notice of the following Heads, which bear the greatest Figure! And bridge that hatthe is not the his to our controll

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The Derision of Ancient Physicians.

IS equally unworthy of a Man of Learning and Probity, and pernicious both to the Republick and to the progress of Letters, to decide the noted Performances of others, or indeed any Essay towards the promoting of Sciences. This is most notorious among the Medicinal Tribe: For the greatest part of their Writers

ters; for almost these forty Years, have made it their Business to deride the documents of the ancient Physicians. And tis incredible how pernicious that has prov'd both to the Science and to the Lives of their Patients. Those who gave . the first vent to this Error, I take to be Helmont and Paracelfus, who in order to raife their own Sect upon the ruines of the Galenick, not only charg'd Gulen and almost all the Ancients with Error and Ignorance, but lash'd 'em with Calumnies and Taunes, in their Medicinal Writings. This Crime of Derifion did not confine it felf to thefe two Authors, but began to foread every Day; especially among their Followers, with whom tis ftill fo much in vogue, that their chiefest Study is to accomodate their Discourses; not to the Nature of Things, but to the Affections of their Minds; fo that their Opinions are not Modelt'd by right Reason; but by the Byals of their Mind: orall bear allies are just al same

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Neither could those who mean'd to make themselves samous by new Hypothesis's minted in this Age, abstain from deriding the Ancients, and that perhaps for the same Reason that determined the sormer. The new Hypothesis's having their respective Followers, these thro' the influence of Faction and a customary Deriston, have thrown many Aspersions upon the Ancients, whom they either never Read or never Understood. However, 'tis no matter whether these Things proceeded from the foregoing, or from private Causes, while 'tis certain that many Disadvantages have sprung from thence. The chief Disadvantage is, that when the derider do's not judge of things impartially, but according to the

the prejudices he has imbib'd, with reference to the precepts concerning the cure of Diseases, which are fully explain'd in the Writings of the Ancients; in that case he must needs take them to be either false or useless, and so rob the Patients of the Advantage they might reap from 'em. Befides, they confide fo much in their own Hypothefis and Opinions, that 'tis almost below 'em to condescend to Experience; or if they do, they either imitate Nature by their own Jests or make an unfeafonable leap from a few scraps of Experience to general Axioms: And from these rather than from Phanomena diligently observed, they draw Arguments concluding upon the hidden Caufe. I pass over a great many inconveniencies of this Nature, accruing to Phylicians and the Science they profess, and much more to the fick Persons, from that scandalous Crime of Derision; which are all obvious to any Man that Reasons Justly and Sincerely

Ш.

To speak more particularly of the Ancients, I reckon 'em much worthier of Praise than of Derision and Calumny: For, besides that they laid the first Foundation of the most Excellent Art; they have weigh'd and examin'd the Nature of every Disease so diligently, and enrich'd the true Practice with such valuable Accessions, that we have but small hopes left of ever going beyond their sublime Performances. Tho' some of the Galenicks are too ready to fall in with less constant and uncertain Theories, yet the whole School of the Ancients ought not to be promiseuously charg'd with Ignorance and Folly: For the Galenicks of some Ages had some Plea to

be somewhat addicted to these Theories, in order to humour the Genius of the Age in which they flourish'd, as well as the barbarous Comments of the Arabians; especially considering that the Springs of the Grecian Medicine with which the Physicians water'd their Grounds, were, thro' the filence of fo many Years, either quite dry'd up, or corrupted by Sophistical Additions. But even in those very Times, many of 'em feeing through the inconstancy of their Theory, bent all their Thoughts upon the Diagnosticks, Prognosticks, and Cure of Diseases, i.e. upon folid Practice; and what noble progress they made in this Defign, is sufficiently manifest, from the incomparable Cures and Rules, with which they have adorn'd their Books. Now the Moderns shew so much malignity in Detracting from these great Men, that they are not asham'd to expose not only their Theory, but even their Practice, to open Derifion; and being every day harden'd in this Opinion, they choose rather to Err along with those of whom they have conceiv'd a good but false Opinion, than to be wife with Men of Learning, of whom they have not fo good an Opinion They run down Galen very unjustly, and throw such impudent Reflections upon him, as if he had been the worst and unjustest of all the Men that either now are, or ever were: To do this, and at the same time to cry up the Moderns in one place for Gods, and in another place for Princes of the Sciences, is not the part of a prudent Man, or one that judges justly. Let me therefore earnestly intreat Physicians, hereafter equally to perufe the Modern and Ancient Authors, and to mind nothing more in the perufal than their Rules and Cautions, the approv'd Remedies, and fuch like folid Things, which

which are perpetual, and of some Use and Verrue in this our common Sea of Mortality: As for the other things which are more abstracted, and will never profit any Body, I would have 'em entirely overlook'd, and set apart for popular Sermons.

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IMPEDIMENT II

The false Idols of Physicians, or the Prejudice of false Opinions.

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from their mear Nich, that they we not affiamed HE third ftop of the Practice of Phylick, wis the falle Idols with which a great part of Phylicians, especially in this Age, are Enchanted and acting up to their Measures difliants and clouds the Senfe of the Soul and of Nature by which means it comes to pas that ludgments are not form'd in conformity to right Reason, but pursuant to the prejudices of the Mind. Out of fo great a croud of Idols, the following which occurs to my Memory, shall fuffice. A great many have fuch an Affection to fome one Remedy, that they think it slone entitl'd to a Sovereign Vertue and Power of Curing almost all Diseases; either by reason of a hicky event observ'd once or twice to ensue upon the ule of it, or rather by reason of a certain innate propenlity that they have not only of crying up fome Medicines, but of afcribing 'em Fiditious Vertues. We see some Physicians recommend Milk

Milk and Whey in all Diseases; others spirituous and volatile Remedies; others Acids and Alkalies, and others again Purgation and Bleeding In fine, every Phylician cries up a great many particular Remedies of this Nature according to his own Genius or the Accidents of his first Practice; and imprudently throws away the reft. the never fo much Approv'd and Beneficial Some are mighty Favourers of fome Theoretick or Practical Proposition, which they have either fuck'd from Books or invented themselves; and model all the Rules of the Cure of Difeafes by that Proposition. Twere in vain to found time in mustering up all the erroneous Advances of this Nature; fince they are obvious to any one that feriously considers the Performances of the Moderns, who have almost funk the Practice of Physick by following that Maxim of minding only a few things and pronouncing accordingly. cealed Heat, actuate, the could Matter that men

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Vicaris do citiger exafperace or doplicate exp Many Phylicians of this Age reckon Bleeding. Bliftering, Purging and other Galerick Remedies, at once superfluous and pernicious. This puny Thought was first launch'd by Helmont, and having made various illusions in the straits of an inconsiderate and interrupted Experience, has gain'd a wonderful ascendant in the Minds of the Moderns, who being fond of Novelty, rail very haughtily, and to the infinite lofs of their Patients, against the use of such Remedies, Others take all Diseases to spring from an Acid, and pretend to Cure em by Alcaline Remedies; this way of Cure being the easiest of all, and apt to be learn'd in a few days, by every filly old Woman, do's at present prevail beyond the others. C 4

But the Phylicians that are ignorant of the Hypocratick Maxim, that there are a hundred things that injure a Man, feem by that Method of Cure rather to form Conjectures upon Diseases, than to make any certain Discovery; of which more largely hereafter. Some are wont to exhibit a Purge in the beginning of all Difeases, in order, fay they, to carry down the preceding Matter that feeds the next. Many Physicians do stedfaftly adhere to this munky Advance that was herch'd in the Schools of Abraham; and to take em off of that Opinion, neither the repeated Observations of the Ancients, with reference to the Seafon of Purgation, nor the very Example of the divine old Gentleman, who never used Purgatives in the beginning of Diseases, but when the Matter was Turgescent, are of any avail But in carnell, Purgatives being apt to renew the Fermentation, do sometimes by a concealed Heat, actuate the crude Matter that was formerly lock'd up in Retreats: And by that Means do either exasperate or duplicate Fevers for recal them when they are upon the point of going off, has proved the direction of the provide an or carried from and refusions. The

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Among the apish Advances that impose very much upon Physicians, we must reckon in that of those who imagine, that no Man can arrive at the perfect Knowledge of Practice, without a previous Acquaintance with other Sciences, namely, Logick, Mathematicks, the various Idioms of Languages, Rhetorick, Astronomy, &c. the Knowledge of which, and a great many other things of the like Nature, would indeed

prove a considerable Ornament to the Profession of Phylick; but in my Opinion, they are as conducive to a circumstantial and exact History of Difeafes, as the Art of Painting is to a Mufician: For Experience justifies, that the old Galenicks who were scarce acquainted with the Latin Tongue, could Cure Difeafes as happily, as those who are given out for the greatest Masters of Sciences, that have no tendency to the Cure of Diseases. This Custom introduced in latter Times, has given Rife to several Absurdities in the way of Phylick; especially this, That the spending a great part of Time in the Acquisition of the abovementioned Sciences, leaves but a in-Sufficient Portion of Time for the first Elements of Practice: Besides, these Physicians boast of their being Astrologers, Poets, Criticks, Historians, Philosophers, Men well versed in the Greek and Hebrew Languages, Oc. But when they are privately called to give an Account of what our Ancient Oracle leads to, I mean the Knowledge of our felves, the Arguments they offer are jejune and useless. For this and sevepal other Reasons being render'd uncapable of compassing a folid Practice by the help of Obfervation, they prefently learn the Idea of some general Hypothesis, and attempt the Cure of all Diseases by general Propositions, some Theoretical and some Practical. Now these things are only like Apparitions in the Surfaces of things, fwimming as twere and ftruggling in the Waters, and itis no wonder if they at first view screw up their Hopes, and afterwards difappoint them, so a well as bon I small a militie of widebel see the proper such as bas

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their to m electricity and all their But to proceed more regularly in pursuance of this Argument, we must distinguish the History of Diseases, or the Medicina Prima, from the Cure of Diseases, or the Medicina Secunda, The History of Diseases is a particular Science of a peculiar Form, which does not owe its Principles or Improvement to other Sciences, but to the pureft and most sovereign Fountains of Nature; by Vertue of which, it is entituled to Perspicuity and Fidelity: Or to speak more plainly, the whole History of Diseases depends upon a diligent and patient Description of all fuch things as the Learned Observator has mark'd down concerning the Invasion, Progress and Exit of Diseases, and committed to writing, with the fame simplicity and sincerity that he us'd in obferving them, without adding any thing of his own, or of the Doctrines of Books and other Sciences: Now, the Infancy of Phylick, which owes it's first Norishment to the History of Diseafes, cannot be confounded and tyed up to the Rules of other Sciences, without demolishing the very Foundations of the Divine Art it felf: In effect, all that part called the Medicina Prima. which is the Basis of the Medicina Secunda or Curative Part, ought to be treated of fo as that it be derived from the true Nature of Things. and not from the Nature of our Thoughts, as many have done: I mean, that its Improvement must not be carried on by Arrogance and Pride, but by various Labours, by a patient Enquiry, and an anxious and cautious Fidelity in making Observations.

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As for the Medicina Secunda, or the Curative part, I must needs own, that it may be illustrated in feveral points by the knowledge of other Sciences; especially those which bear any affinity to Phylick, or are look'd upon as retainers to it. Such are Chymistry, Botany, the Doctrine of Diet, Exercise, and the six not Natural Things, Experimental Philosophy, Anatomy, and other things of that Nature, which contribute very much towards the perfection of Method, and a ready view of the Indications of Cure, even upon the minutest Circumstances. For Method being, as twere, the Architecture of the Physical Structure, and the Bafis of Cures, cannot be compleat. unless its Parts be mutually perfected by the means pointed to in these Sciences; and so joyntly conspire in an Unity of Truth and Nature. As for the other Sciences, which are not ar all related to Phylick, I shall not deny but that the ways of Thinking may be improved, and the Office of a Profesior adorn'd by the Study of the Mathematicks, which our Countryman Martimus Ghetaldus has accurately purfued in his learned Performances, De compositione & resolutione Mathematica, and his Appollonius Redivious. To there we may add the Knowldge of Meteors. Aftronomy, Eloquence, or the Art of Perswading, Moral Phylosophy, especially that part of it which treats of the forming of a Man's Manners, and the acquisition of Prudence, which is fo necessary to a Physician, &c. But in regard they have no rendency to the Curing of humane Bodies, they are only to be purfued at leifure Hours in order to divert and unbend the Mind.

For as either the Body or the Mind is weakned and wore out by over-ftruggling, so they are mightily refreshed and corroborated by a seasonable rest and relaxation,

VI.

They are much mistaken who think they can cure Diseases happily, because they are Masters of the Theory; for a Phylician ought to have much higher Things in his view, in order to clear the innocent Art from the Calumnies it lies under, and restore the Sick to a healthy State. He must dissect the Bodies of those who dve of Distempers, and foul his Fingers, to the end he may find out the feat of the Malady, the Caufe, and the issue of antecedent Symptoms; and, in fine, the event of all the Effects taken notice of in the foregoing Disease. The sick Persons Excrements and Urine, his Tongue and his Eyes, his Pulse and his Face, the Affections of his Mind, his former Way of living, and the Errors he has been guilty of in the way of Conduct, and fuch other Circumstances ought to be diligently confidered, in order to trace the genuine and natural Diagnosticks and Prognosticks of Diseases, and the indications of Cure. To frequent or boast of splendid Closets, to heap up great Numbers of Books without using em, to make a Figure at Universities, and have a name celebrated in the modern Journals of the Learned; this, I say, will contribute nothing towards the appealing of the pain of Diseases. But that End will be effectually compass'd, if you frequently visit the Publick Hospitals and nasty Beds of the Sick, and with an auftere fearless Patience observe what good or ill happens in the several Periods of the Disease, how the Symptoms make their proprogress, and what Event follows the administration of such and such Remedies; whether the
present Disease is turn'd into one of another
Form; what Benignity, Malignity, Vehemence,
&c. appears in the Disease and in its Symptoms,
thro' all their Periods; what Method of Cure is
found to be standing and perpetual for each Distemper. I say, 'twill be of infinite use to make
Observations of these and a thousand such things
which have a more intimate relation to Nature,
and rather distinguish than split and rend its parts.

VII.

The defire of vain Glory, has in all Ages put Physicians rather upon the forming of Sects, than the daily discovery of new Phanomena's, to illustrate and confirm the History of Diseases. Thus they've moulded the Nature of Things at pleasure; and almost overturn'd it with their indigested Meditations. And upon that score 'tis no wonder that the patrimonial fund of Med'cines is impoverish'd, and its flourishing State disturb'd by a multinude of useless Books. The followers of those who instituted Sects, being missed by a vain Reverence, or scar'd by Laziness from the trouble of a narrow Enquiry, chose rather to affect the fame of a subtile Interpreter, a nimble Antagonist, or a methodical Abridger, than to fix the Diagnosticks, Prognosticks, and Cure of Diseases upon their own Obfervations. In a word, they acted the parts of a Master and an Auditor, and not those of an Inventor, and the Person that adds to what is already invented.

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Of the Precepts for Life and Manners, those are the best which are publick and common, and univerfally acknowledg'd by all Sectaries, whether Peripateticks, Academicks, Stoicks or Cynicks. The Phylicians of this Age, ought to mind that Saying of Seneca's concerning Manners; for the Precepts of Practice that they give out now adays, are neither General nor Common to each Sect, namely, the Galenical, Chymical, Mechanical, Oc. (as Hippocrates's Works are) but are cheifly confin'd to Particulars, and not confirm'd by any History or matter of Fact: When they fee a thing succeed once, they fancy twill always be equally fuccessful; but the procels of Time giving them a fuller View of the Matter, they find it to be uncertain, and confind to a particular Case, instead of being Universal and Perpetual. The modern Paradoxes the mutual Animolities of the late Phylicians. the Number of Books which those of our Family have indifcreetly Published, concerning the uncertainty of Physick: Thefe, I say, are full Proof, that the Rules of modern Practice are not general, or confirm'd by a full Convocation of Physicians, but contriv'd at every one's Pleasure, either out of Hatred to an opposite Sect, or the love of their own, it being Cultomary among em to defend and promote the Glory of their respe-Clive Sects with all their Prowels; or elfe they are contrivid thro a want of Sense and Thought; or a crowd of Prejudices, or an Affectation of Novelty, which in this Age has been foolishly coveted; or the false Influence of Precepts and triffling Books, or thro' the Contempt of a NeighNeighbouring Physician &c. So that we can never have any great Hopes of the increase of Physick, till all its Sons joyn into one Family.

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ing it inflational Search Ignorant Phylicians are oftentimes impos'd upon, by the abufive Accusation of a fictitious fort of Malignity in Difeafes. They do not imploy their Diligence in tracing the Antecedent Caufes, Symptoms, and whole State of the Difease; and by that means commit great Errors in the way of Cure, which exasperate the Disease, that of it felf was mild and gentle; and upon that, they impute the Exasperation to a certain latent Malignity, that in my Mind is merely Fictitious. In the mean time, they cannot tell where the Nazure of that Malignity lies, and so e'en Aquiesce in the Popular Opinion, that the Malignity of the Humours mult be attacked by Alexipharmacal and Heating Med'cines, and thrown out by Sweating. But after copious Sweats, this Malignity is somtimes so far from being removed, that the Latent Inflammations of the Vifcera, which for the most part are the Genuine Cause of fuch Fevers, are thereby increased, and the Patient's Illness is inflam'd. Some latter Physicians, after a narrower Enquiry into the Accidents, accompanying the Fevers that are commonly call'd Malignant, have discover'd, that all of them do chiefly depend upon a double Caufe, namely, the Coagulation and Dissolution of the Humours: And the Method of Cure must be altered, pursuant to the Variety of this preternatural State of the Humours. As Cordials, Spirituous, and heating Med'cines, are convenient for Malignant Fevers arifing from a Coagu-Zaluponi lation.

lation, so they are highly Pernicious in those which proceed from a Diffolution; in which Case the Temperate Acids, the Emulsions of Seeds, the Gellies of Harts-Horn, and fuch like moderating Things are only proper, for curbing that diffolying and almost inflammatory State of Blood. Now, fince the above mentioned Med'cines operate by a manifest Quality, inabling them to Diffolve or Moderate; I hope none will deny, that fuch Fevers are like-ways produced by a manifest Cause. So that the sictitious Notion of Malignity tumbles down of its felf. But after all, I don't deny, but that there are fome Fevers which are truly Malignant, being produced by an Air and Humour allyed to Poyfon, and scarce perceivable by our Senses, such as that which takes rife from the depray'd Qualities and Influences of the Air, corrupt Food, poylonous Animals, and fuch other Caules. But that fort of Fevers is very unfrequent, and not near fo common as most Physicians imagine. I pass over a great many other Prejudices that impose upon Phylicians and cramp true Practice, left I shou'd tire the Reader, or fall upon Tautologies.

CHÁP. VI. OBSTACLE III.

False Simile's, or a false sort of Analogies.

SECT. L

A S Arguments drawn from Similitudes are the easiest, so they are the most apt to draw fallacious Conclusions, unless they be very Regular

regular and just, And the Impatience that Physicians thew in their Enquiries, is manifeltly owing to nothing for much as the false Similitudes, than they encourage fo much, both in curing Difeates. and in forming a Judgment of them. A Similirude that concludes Perfectly, ought to relate only to things that fall under one Genus, as to Plants and Plants, Minerals and Minerals, Animals and Animals, Oc. fo that all the feveral Attributes of one thing may be verified of the other to which it is compar'd: For otherwise, the Conclusion will be imperfect for want of a sufficient Enumeration of the Parts, and from thence mighty Exrers will fpring up. If any one thou'd compare Alexander Farmefius to Cafar, the Comparison would be Just for they were both Men and both of them Great Generals in their Time; and the Attributes of the one, are exactly fuitable to those of the other. But if he shou'd Assimilate Farnesius to the Sun, the Similitude wou'd be extravagant, and too far fetch'd; for that the Attributes of the Sun, cannot be absolutely verified of Farnefius. Now this is the true State of the Similitudes, us'd commonly in Beatly actived to the Bourge of incessed the Physics of the Court of t

Those who argue by way of Analogy from the Anatomy of Infects to that of Brutes, and from this to the Anatomy of Men, are excellent Philosophers, for as much as the Terms of the Similitude are all confin d under the Genus of Viventia, and after a sufficient enumeration of the parts, the Attributes of the one are exactly answerable to those of the other, so that the Anatomical Observations made upon Brutes have not only given great light to those made upon human Bodies, but are exactly of a piece with them. Nay, fo certain and constant is that murual Analogy, that from thence the circulation of the Blood, the structure of the Viscera, and an infinity of other things have been discover'd, to the great happiness of the Age we live in. In like manner, those who argue from the Mechanicks and upon divers Rules of the Mathematicks, relating to the Staticks, Hydraulicks, the force of Heavy Bodies, Oc. conclude upon the structure of a living Body; these I say reason justly, because the human Body is calculated by Number, Weight and Measure, not only as to its Structure, but as to the Effects that depend upon it. Such was the Will of the Supream Creafor of the Universe, who to subject the Body to the easier sway of the Mind, seems to have drawn the mast regular Series of Proportions and Motions, in the human Body, by the fole Pencil of the Mathematicks. Since the Analogical Argumentation of Anatomy and Mechanicks, has a great relation to the Cure of Diseases, and concludes with more certainty than the other Hypothefes; 'tis certain that the Famous Tozzius & Borelli at Naples, and Bellini at Florence could not have done better fervice to our tottering Theory, than by applying Anatomico-Mechanical Rules in explaining the Effects of Difeafes! Upon which Head their learned Performances deferve to be read, the Writing of which has contributed for much to the Glory of our Country and profeflion, and the Benefit of fick Perfons. But those who reason from the effects of Minerals in a chymical Furnace, to the effects observed in the Body of an Animal, do not only conclude in a fame imperiect way, but give occasion in a Flaming degree to those pernicious Errors, which unjustly

justly disturb our Modern Physick: their Conclusions wou'd be juster, if by the Anatomia Infuforia they threw in Chymical or Vegetable Liquors into the Humours of living Animals, and made their Remarks upon the Effects ariling from fuch Mixtures for ballords bar slotter

Twere tedious to give in a Lift of all the false and almost popular Similitudes, made use of by our modern Physicians in the Cure of Diseases. How pernicious was that Similitude which Helmontius first invented, in order to disswade the vulgar People from Bloodletting. The Simile I speak of was this; As Water boyling in a Kertle can't be cool'd by the taking away of the boyling Water, but by the removal of the Fire underneath, fo in a Feverish ebullition of the Blood Bleeding will not lesien the Heat, and that End will only be compais'd by the Evacuation of the Morbifick Cause, by Sweat and other ways. At first View this seems to be a complear Similitude. but for as much as it ranges beyond the Sphere of the mucual Pradicatum, it leads Practicioners to great Errors. For, to pass by all other Reafons, our Feverish Flame is mixt and exactly united to the Blood, and not put under the Veins like Fire under a Kettle; to that when part of the Blood is removed, the Febrile Flame is at the fame time likewise impair'd. However, the the Solid Arguments of Mechanicks and Experience advice us to a prudent use of bleeding in Fevers. yet we do not recommend it in all Fevers, but only in fuch as threaten great Evils, by reason of an overboyling of the Blood, or too great a Quantity of it, or the commencement of a stagnation in any Bowel. The fatal Symptoms enfuing ensuing upon these Causes and prevented by Bleeding, are chiefly, Deliriums, Watchings, Inslammations of the Viscera, Anxiety of the Breast, Difficulty of Breathing, stopping of the Liquids that circulate in any Viscos, breaking of the Vessels, and a thousand such like Accidents. Nor does Bloodletting only suppress the abovemention'd Accidents, but likewise reduces the boiling Mass of the Blood to such a Mediocrity of Motion, as is sufficient for a scasonable deputation and secretion of the peccant Matter.

wasting field inverted. VI order to diligade the volger Prople from Bloodletting. The Simile I

The same Helmonrius has invented another Similitude that's equally hable to the fame difficulties. Tis this. As a Fever occasioned by a Thorn in the Finger can't be extinguished without bulling out the Thorn, fo all other Fevers will never be cur'd, whiels the Thorn of the peccant Matter that irritates the vital Spirits, be carried off immediately by Diaphoreticks, Purgatives, without expeding any Concoction. Now belides that there are a great many Fevers. that are not produced by fuch a semible Thorn of peccant Matter, particularly those which take their tile from Anger, Venery, Passions of the Mind Co. These Divircticks, and Purgatives exhibited in the beginning of acute Difeales, in older to throw out that imaginary Spina, have , no other effect than that of robbing the Blood of its ferous Part that dilutes and tempers it, and To disposing it for Congulations and more fatal Ebullitions. Hence tis no wonder, what we see every day, the Symptoms of acute Fevers, and the Fevers themselves are to the infinite danger of the Parient exafterated after an ninfeafonable enfining

use of Diaphoreticks and Purgatives. The other Similitudes to familiar to Physicians in the explication and cure of Difeates, are liable to thefe and other Difficulties. Such is the Similizude of the heat of Things that putrily in Moilture, with respect to the hear of Feyers, which the Galenists fairly supposed to take their rile from putrifying Humours; but that Opinion being fufficiently confuted and exploded by the Mo derns, I pass it over in silence. Add to this, the Similitude of the Head of an Alembick convert-ing the Vapours to Water by its refrigerating Vertue, made use of in explaining a Catarrh, which was thought to be occasion d by the refrigerated Brain, its converting the Vapours that ascend from the Viscera into a tough pituitous Humour: The Similitude of the Brain suppresting the Spirits by its Frigidity, and to cauting Sleep : The Similitude of the yulgar Suctions. Attractions, and Excretions, brought in upon the explication of the natural Effects of a living Body. These, and an infinity of other popular Similes are much esteem'd by ignorant Physicians, who calculate the cure of Difeases not by Dogmatick Laws drawn from Nature's Storehouse, but by the Measures of some fictitious or imperfect Similitude, after the manner abovemention'd.

The prepoherous reading of Books.

Tho' I have hitherto given an ill Character of the abuse accruing from shortinus Similes, continued down from the Ages of Barbarity to this we live in: Yet I would not have any one to think, that I condemn the use of arguing by way of Analogy or Similitude; but only that I want to see em managed with more Judgment, especi-

ally, when the cure of Dileafes is regulated by em. For all the discoveries of natural and experimental Philosophy, and even Medicine itself, for this last Age, are owing to Analogy and Induction; not such as I disprov'd in the foregoing Examples, but fuch as is perform'd by an entire enumeration of the Parts, and confirm d by a long and manifelt Series of Experiments, and which affords general Axioms collected from it, like the Whole from its Parts, which give a perpetual Stability to the truth of the Science, and chalk out a fure and constant Method of Practice, rendring the Practitioners Reddy and fearless in fixing the cure of Diseases: So that analogical Arguments are better calculated, than all the other ways of arguing, for improving the Arts comprehended under the natural Science, especially Medicine; partly because Analogy is a retainer to Nature, and as twere mix'd with it, and partly because it discovers the transition of Opinions into Error more manifestly, than the other Species of Arguments.

C HAP. VII.

OBSTACLE IV.

The preposterous reading of Books.

SOE C. T. I Lamon and sola

Ne will never make any progress by the reading of Books, unless he first fixes upon a method of Reading. A tumultuary and inconfiderate way of Reading, accompany d with an infatiable Desire, does but cloud the Mind: but when

when tis feafonable and confiderate, and attended by the Conversation of Learned Men and the Use of Experiments, it becomes fertile and useful. For as over-feeding does not improve Health, neither does infatiable Reading inlarge folid Knowledge. And 'ris for this reason, that those who consider but a few things with Prudence. not only judge more perfectly of things, but give their Sense of them with greater readiness and facility. I own, that we owe a great deal of our Improvement to Books; but before we can reap from them any plentiful and complear Benefit, we must be a long rime diligent in discovering and furmounting the Errors that Authors are ufually liable to, and with which they caint our Minds, and feduce em from the Paths of Truth. By the reading of good Books we are quickly benefited; but by the perulal of forty ones we Unlearn inflead of Learning. In island and of to tacke of the followed Science, which they are

us, not to private out. I out in Whitings expede

to the publick View, as being highly netellery As for my part, I do not mention this, as if I meant to give Laws to Mankind, with reference to the reading of Books. My View is to take notice of fome Errors, that frequently fall in the way of those, who apply themselves to the perusal of Books in a prepolicious manner, and without due Caution; for this is a fource of infinite Inconveniences, accruing not only to the Readers, but to the Sciences. Some read in a tumultuary confused way, others with a contradicting Humour, and others again forgetting their Liberty, cling to the Opinions of Authors like inchanted Rocks, taking their Nod for Reafon, their Orders for Laws, and their Responses for Oracles! But to come to the Matter itself? 27 1 200 its with the

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III. Thofe,

when his featonable and confiderate, and arren-

incuts, it becomes hire Those who apply themselves to several Sciences at the same time, are wont to form their Judgments of one by the Precepts and Rules of another, especially that in which they take most Pleafure: Thus, among the Ancients, Arifforle form'd his Affertions of natural Things from the Doctrine of Dialectick, and Plato took his Measures upon the same Head from abstracted and theological Idea's, as Proclus and his Affeciates did from the Rules of Mathematicks. Physicians, in like manner, are wont to covet the Knowledge of other Sciences befides that of the cure of Difeafes, and if they happen to pursue one of these Sciences with too much eagerness, they presently judge of Practice, and the cure of Difeases, not according to the regular Rules of Practice, but according to those of the beloved Science, which they cry up, not in private only, but in Writings exposed to the publick View, as being highly necessary towards the carrying on of the cures of Diseases. Whether this Vice is to be imputed to the Age. or to the Authors, I shall not determine: But'tis certain, that a most all the Physicians of this Age are tainted with it, and that it has brought the Sciences into great diforder. Upon this View, Cardilucius in the Preface to his Practice inveighs fomewhat warmly against the Anatomists, for pretending that the cutting of the small Fibres is to necessary for reaching the History and cure of Discases; whereas, as he says, after the spending of these last fifty Years in Anatomical Diffections, the History of Diseases is not more exact. nor their Cures more folid, than before. As Cardilucius censures the Anatomists for raising NAT TH fuch fuch high pretences upon the Diffections of minute things; so it observable that the Chymists have regulated the History of Diseases by a few. Experiments taken from the Furnace, the Coiners of new Systems by their Sophisms and new minted Words, and the Mathematicians by Circles and Lines. But I leave it to the Learned to Judge what the effect of that may be.

Mind, and callifes there to a just of fracing

Farther, Those who read Books, use to employ their Memory more than their Reason; they feem chiefly to aim at the Learning what this or that Author advances, and are altogether Ignorant what Sentiments they ought to form to themselves upon the bottom of their own Experience. If we look a little narrowly into the Writings of some of our modern Authors we'll find, that they value themselves upon a long Genealogy of new Opinions, and a medley of various Colours, but not upon any defign of making new Discoveries, or confirming former Inventions. Now, I cannot assign any other Reafor for this, but that incredible Inclination for Reading and almost Dying upon Books; or rather their Laziness in never using their own Reafon or confulting Experience. And hence it comes to pais, that the more they read, the more confus'd they are in their Sentiments of things; and their Confusion throws them headlong either into Scepticism or Madness. For fince the Capacity of the Brain is not Infinite, tis no wonder that the innumerable Impressions of Idea's are mutually confounded, and take the Mind off from just and diffinct Judgment; by which means Men coming to a difuse of their own Thoughts, contract an Importency of ever using them. This fort of Men, who imploy their Memory more than their Reason, use to be of a stately supercisious Temper, and are apt to arrogate to themselves a right of determining every thing: And indeed nothing less can be expected of em; for that salfe fort of memorial Knowledge (if I may so call it) pusses up the Mind, and entitles them to a sort of shining Quality, with which they are wont to anticipate those who mean to oppose them, especially if it is accompany'd with an imperious Boldness, and a formal Gravity of Speech.

cast Entire surplees, we are alsogether, Land-

There are a great many Men in the World, that imploy their Neighbours Strength and not their own in their enquiries after Truth. In the common Actions of Life, they always make use of their own Eyes; but in tracing the Nature of Difeases, they seldom or never have recourse to their own Reason. A peaceable Assent to a probable Thing, and a want of Skill in making Experiments or forming just Judgments, which many Phylicians have contracted for want of that fort of Exercise from their Youth; this, I say, keeps many at a great Distance from the Knowledge of the Truth. Thefe Men confound Truth with Antiquity, and Fallhood with Novelty. New, and even True Discoveries they brand as falfe, and cry up the falfest of the Ancient Assertions for Truth. The Circulation of the Blood, the Discovery of the Lacted and Lymphatick Veffels, the Structure and Use of the Nerves and Viscera, and a great many other modern Discoveries confirm d by the constant Voice of Nature; even these, they stand not to Censure and Abuse, and that for no other Reason, but because they are new. On the other hand, the Rottenness of the Humours, the Sanguistication-Office in the Liver the Authority of the first Qualities in producing and curing Dileases, and the other Opinions of the Ancients, which for several Ages have rendered inestectual the noble Essorts of a great many for enriching the medicinal Field, and have tainted their Minds with salse Prejudices; These they keep close to, because they pleas d the Ancients, and claim a Title of Antiquity.

VI.

Farther: The fame very Men are such great Admirers of the Ancients, and account em fo Praise-worthy in all kinds of Arts, that they think we have no room left for Inventions, not no ground to hope for any Improvement. But their Mistake is sufficiently made out by the present Age, which has gone beyond all the Ages within the Records of Time, in the Glory and Multitude of Imventions: Nay, the steddiness of Nature in her Operations is further evidence for this purpose; for by an immutable eternal Course the displays an admirable Constancy and Equality in all her Offices; so that I cannot understand how it should come to pass, that this Age should produce a Generation of Men more dull in the way of Invention, or flower in their Apprehensions, than those of former Times. But the matter lies here: 'Tis not the Genius's and Judgments of Men that are grown Old, but their Industry and Application; for the force and edge of the Mind is only broke

by Idleness; and old Age that overtakes every thing elfe, has no influence upon the Genius which is fortifyed by the strongest and almost immortal Bonds of Nature. Now, if we understand this aright, 'twill plainly follow, that equal to what the Ancients had, but wou'd far exceed it if it were but whetted by Exercise and that Antiquity or Novelty do's not raise the value of things, so that the Ancients are rather to be imitated than superstitiously, admir'd Not that I have any Prejudice against the Thoughts of the Ancients, or mean to depreciate them upon a Point that has procurd em fo much Glory: For as I have all along followed. their unequal'd Industry in enriching the Practice of Physick, so I am infinitely forry that in these Times we are fallen into fuch Straits, that ber ing destitute of the Supports in which the forther Ages abounded, we are at a loss to know how to promote the Art of curing Men. And tho many of the Ancients draw a Curtain before the Eyes of their Readers, yet their Writings have some scatter'd Sparks, which, if carefully observed would set their Precepts in a clear Light:

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But least any of the ignorant Tribe, should falfely charge me with the diffwading of young Men from to ufeful and laudable an Exercise. as the reading of Books; I think my felf oblig d in this place to confess Ingenuously, that, as I owe to the reading of Books some Progress in the way of Physick, which, tho small, is not hurtful; so I shall ever exhort and encourage young Men to pursue and cultivate the same Study! However, that they may avoid those Sands upon which I have oftentimes necessarily strucks I think it proper to give them a few preparatory Cautions. Ih order to reap a speedy and compleat Advantage by the reading of Books, they should always read the approvid Authors; and if there's one approved beyond all the reft, they should never want him out of their Hands as containing the Sum of all that Wildom, which they'll scarce ever find in a hundred Authors of an inferior Character. For a Proof of this, let's pitch upon the learned Sanctoring, who by his golden but fmalt Trearife, De Medicina Statica, has done more Service to the common Interest of Mankind, than a thousand other Authors in a thousand Volumes, who by pilfering from one another, and to running as twere in a Circle, have exposed to the publick View a deplorable plenty of Words, wather than any eternal Monument of their Industry. You cannot profit by reading without you understand what you read; and what you understand, you must not give your Assent to it, till you confider whether 'tis true or false. Make use of your own Reason in resolving the Questions you see perfix'd in the Titles of Books, and by joyning Experience to your affiduous Reading, endeavour to make a just Judgment of every particular. For unless Reason directs your Studies; Study will not only fail in perfecting your Reason, but will blunt it, and seduce it from the right fcope of your Labours. To dwell upon Books till one is almost dead and languishing, speaks a specious and empty Laziness; to abuse them in a softer way, signifies Ostentarion and Ignorance: For 'tis well known that Letters perfect Nature, and tis equally known that Letters are perfected by Experience;

and when they enjoin some general things, unless these be determin'd by Experience, we shall never compais the wish'd for End. "Tis manifelt from Experience, that those who Die as 'twere upon the reading of Books, become stupid and inqualified for all the other Actions of Life; nay, that is not all, by reason of their perpetual abstraction from Things and the confusion of their Idea's occasion'd by over-reading, they are uncapable to ferve either themselves or the Common-wealth. On the other hand a great many Men that have read but very little, have always been esteem'd and admir'd by Men, because they form'd their Thoughts and Judgments of Things with Prudence and Sagacity. When you find your felf indispos'd for Study, that is, when you have not a chearful Defire and Inclination for't, abstain from it at that time; for the you then read a great deal, you'll get but little by't. Wherefore, that fuch a Space of time may not be spent in vain, imploy it either in converting with learned Men, or making Experiments. do in full course countles wheelver is and outline.

and approprie are to the VIII. To make the

Your cunning Men use to despise Letters, and simple Folks admire 'em; but prudent Men take the middle way, and only use 'em so far as their Publick or private Necessity requires. To read Books with a design of contradicting, or for an external Ornament, or to assent to all their Precepts promiscuously without any Examination, speaks an Assectation of Knowledge, rather than true and solid Wisdom. For as much as the whole Practice of Physick is couch'd in Cautions and Precepts confirm'd by long Experience, and these are apt to slip out of one's Merience, and these are apt to slip out of one's Merience, and these are apt to slip out of one's Merience, and these are apt to slip out of one's Merience.

nory, unless they be carefully fix'd in it; 'twill therefore be proper for a young Student to have by him a Manuscript divided according to the Titles of the most remarkable Things, under which, he may mark down the Sentences of greatest Moment that he meets with in Books, and which he may always be reading ever at his leifure Hours; by which means thefe Sentences and Precepts being more firmly riveted in his Memory, will improve and perfect the Mind, fo that he will intrepidly go about even the most difficult Cures of Difeafes. The Writings of approv'd Authors, ancient or modern, which treat of nice Subjects, are not only to be read once, but over and over again, and always confulted; fo that our Mind may be as twere new modell'd according to their Pattern. Authors of leffer Note are only to be read here and there; or if they are read over, it must be without dwelling long upon em, or long much time. And as for the Books of the lowest Form, we ought to read em only in Epitomes drawn up by a Fellow-Student or an Amanuenfis. By chis means we shall acquire an extensive Know ledge of Sciences and Learning, without any great loss of Time or Health. In the mean time. let's confider of what use the reading of Books is, to those who are already imbarqued in the Pradice of Phylick as manifest along a haif a may ad cient himfolk, whole Datente was concern and

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No Age ever produced such plenty of Medicinal Books as this we live in; and yet none is so desicient in Practical Observations. If we take a careful View of some of these Authors, we'll perceive either a nauseous repetition of Things

Things faid before, or an excellive Oftentation of Novelty, or an indifferent Mixture of ancient and modern Advances; and we'll find that more of the Discourse is spent upon Contention and Difference, than upon the Tryal of new Things. An Author of a new Book, who perhaps has but a small Stock of Reason to back his Assertion. is not affraid to censure and depreciate all the Reasons that others, tho' Men of Learning, have produced in confirmation of the fame Polition: This he do's to enlarge the Weight and Authority of his own Advances. If from those Books you lop of the festival and exotical Inscriptions. the Philology, Citations of Authors, Ornaments of Discourse, Fallacies, Superfficion, and such other vain Accourrements, you'll leave but little behind , may, instead of the true Treasures of Wildom, you'll find nothing but Shadows and Chimera's Since therefore the affiftance of Books do's but little Service in determining a compleat and flanding History of Diseases, we must pass to those Things which have a closer Coherence with Nature, namely, Experiments, Observations, Diffections of dead Bodies, Boranical Gardens, and Chymical Furnaces, which unfold to us the true meaning of Nature, by making divers Obfervations upon it, and variously splitting and terturing it. Every young Student knows that he can't find a more learned Book than the Patient himself, whose Disease will quickly and faithfully lay open to the diligent Observer a great many Things worthy to be known, that perhaps a redious Courle of many Years Readng would not bring to his Knowledge. The Parient affords a true and lively Description of the Disease; but Books make fictitious and deprav'd Histories, by a redundant Jargon of Fallacies

The Practice of Physick.

lacies and vain Speculations. However, in order to pass from the confus'd labyrinth of Discases, and open the Way that for so many Ages has been stop'd up, one must not satisfy himself with the Observation of a few sick Persons, but must with equal constancy and ardour of Mind, extend his Observation to great Numbers.

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From what has been faid, 'tis an obvious Inference, that those Physicians who are noted for great Learning, and an eternal dwelling upon Books, are feldom fuccefsful Practitioners; nay, they can never judge justly of the Practice, 'till they make it their only Bufiness, and continue in it for some time. We have a pretty Story to this purpole recorded by John Huartins, Scrut. Ingen. cap. 12. "When the Arabian Medicine, " favs he flourish'd in our Country, a Physician " likewife flourish'd, who was much celebrated " for Reading, Writing, Arguing, Distinguishing, " Answering, and making Conclusions; and in the " performance of all these Offices was so Eloquent, that his Audience affirm'd, he could not only cure Diseases, but even raise the Dead to the " fellowship of the Living. But after all, when "he apply'd himself to Practice, scarce any of " his Patients escap'd the Fate of expiating the " Professor's empty Knowledge with their own " Death: Upon which the Profesior, not knowing " the genuin Cause of so many unlucky Events, and fearing his Reputation and Interest might in time fuffer by 'em, bid adieu to the World, " and ended his Days in a Convent." The same Author has another Story that is yet more apposite to our Purpose, "A certain Physician,

The Practice of Physick.

fars he, privately importun'd me to tell him

how it came to pais, that he who had long Stroy'd and perfectly learn'd the Arr and belt Rais of Prognolticks, as deliver'd in Books, way always diffracefully mistaken when he applyd'em to his Patients, and cou'd never come " He length of prognofticating the Truth. far he. Tis agreed upon by the most judicious Authors (as Huartins observes in the place above quoted) that Hagenterins surpass'd Galen in reducing the Art of Phylick to a more perfect Method; and yet tis faid of him, he was fo unhappy in curing Difeases, that most of his Patients either dy'd under his Hands, or fell into incurable Diftempers: Upon which account his Countrymen were so frighten'd, that they ceased to imploy him. Tis needless to draw out of Authors further Examples of this nature, fince every Day furnishes us fresh Instances. Your Phylicians therefore that are extream Learned. and over-forward in Philosophy and Theory and like Spiders are always fpinning out Wifdom out of their indigested Thoughts; these Men. I fay, will never prove good Practitioners. unless they subject themselves wholly to Experience, and a continued course of Practice : For Diseases are of a hidden abstruce Nature; they work out their Effects by fuch fecret Ways, and fo remote from human View, that 'tis very hard to trace em without diligent Observation. This made Hippocrates cry out so often in his Works; that there is fomething of Divinity (Suor) in Difeafes: And if we confider either the Structure of the Body, or the Original and Causes of Difeafes, or the Effects of Remedies, we'll still find reason to cry out with Hippocrates, of Saor; nay, a fingular happiness in curing Diseases, speaks fome

fome divine thing in the Physician himself; for your Men of ordinary Learning have that install in tracing Diseases and applying Remedies, that the most Learned do sometimes fall short of. We conclude, therefore, what we have already provid, that a Physician, the admirably well skill in the Sciences, and acquainted with Books, will never be a good Practitioner without Observation and Experience in the way of Practice. If any one speaks or acts against this Position, certainly Nature will object to him, what the Ancients did to the Dialecticks, viz. My Son you come from the University, you breathe Pride from an empty Cabinet, from an unlearned Breass.

CHAP. VIII.

OBSTACLE V.

The preposterous reading of Books, and the pervicious Custom of making Systems.

SECT. L

In order to vindicate the true way of Interpretation, in opposition to false Interpreters, twould be necessary to pursue two Arguments, one against the false Interpreters of Diseases, and the other against those of Books. But in regard that most of this first Book is taken up in correcting and restoring the true Interpretation of Diseases, which for the most part is now corrupt and depray d; it remains only that in this Chapter we should point to the Errors of the Interpreters

of Books, and the Humours and Imaginations that prevail within them.

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I never think of that fatal Day, on which Medicine and the other Liberal Sciences being trampled upon by the Barbarians, fell into the hands of the Arabs, but it overwhelms me with Grief and Regret. For as that was the first Date of the Acquaintance of the Arabs with the Grecian Books, To all their Commentaries upon em are rather the ridiculous Genealogies of ufeless Opinions, than the genuine Sense of the Author: And this false way of Interpretation ferves not only to raise their Authority, but to Rifle all further Enquiries: For Proof of this Affertion, we need only to cast our Eyes upon the Ages that succeeded the Arabian School, in which the bewitch'd Physicians did nothing but skip and gad round the narrow Circles of the Arabian Commentaries; and thus spending all their time in canvaling the Works of a few Men, fell into almost a total disuse of Thinking. Twas by those Means that so many vain Comments, and fuch an infinity of capital Errors crept in upon Physick; and so the noble Art, which had in all Times been the Governess of Health, became a mean Waiting-Maid to Factions.

Ш.

Those who undertake the Interpretations of Books, endeavour to usher in their Commentaries with all forts of Panegyricks upon their Authors, especially if they are Authors of the lower Form, or such as need no Commentaries; and giving a

full range to all the measures of Selfconceit, are not afraid to fasten upon 'em the Epithets of Divine or Admirable, or the Miracle of their Age, and to recommend the Matter they treat of as being the product of a Divine Genius, and of the highest Importance to all the Members of the Republick. Now 'tis not the necessity of vindicating or promoting the Glory of such Authors that prompts em to this Practice, but a hidden Itch of procuring the Applause of Learned Men upon the Plea of commenting on first Rate Authors. Mundinus's Anatomy, if compar'd with our modern Anatomy, is as far shore of it as a Flea is of an Elephant; and yet not only Cardanus, but feveral other Learned Men, have plac'd their Glory in crying it up with the highest Elogies, and gracing it with the highest Commentaries. The reason that induced Cardanus and others to fuch Undertakings, feems to be only a vulgar Slothfulness in never trying their own Strength, nor daubing their hands in the Dissection of Bodies; the Consequence of which was, that Mundinus s Text pass'd among em for an unshaken Truth: And for the same Reason Practitioners being scar'd, either by the inconstancy of Success, or by the severity of patient Observations, apply themselves at last, not to the Discovery of the Phanomena of Diseases upon their own Bottom, but to the Interpretation of useless Books. Hippocrates the great Parent and Preceptor of Phylick, did not behave himself so, for tho' he perceiv'd with Indignation the obscurity of Diseases, and the difficulty of making Enquiries, and bit upon the aukward Thought as upon a Bridle, yet he dived into Nature, and with a fixt Resolution pursued the proposed End; till at last, by an indefatigable Patience in the way of Observation, and by the Importance of his Discoveries, he gain'd the Ascendant of all the Physicians that the Records of Time can reach. And as the Anatomists of the Age we live in, by a narrower Scrutiny into Nature, and the frequenter Dissection of Corps and living Animals, have discovered that Mundinus's Interpreters knew but little of Anatomy; so, if any spark of Truth should be added to Practice by this Method of ours, after I have made my Exit, it will give succeeding Ages to know how wide those Physicians are of the true Practice of Physick, who prefer the barbarous Commentaries of the Arabians, to the Study and Practice of their own Observations.

IV.

Sometimes Commentaries are obscurer than the Text; and that because they either don't know, or elfe contemn the true Rules of Interpretation. He who undertakes to Interpret Books, aught to be furnished, not with a vulgar and superficial, but with a folid and deep Knowledge of the Subject he pretends to explain. Just as the Criticks do, who before they pretend to unlock the obscure places of Poets or Historians, spend a great part of their Time in purchaling the Knowledge of the Cultoms, Wars, Ways of Living, and other Circumstances of the Age in which the respective Authors flourished. Now in order to comment upon Books of Pradice, I look upon that Knowledge to be necesfary which is the product of long Practice and patient Exercise. This Thought is justified by three of the greatest Interpreters that ever were, namely, Duretus and Martianus among the Ancients, and among the Moderns, the celebrated and learned Lucas Toxxins present Physician to his Holiness; each of whom spent the greatest part of their Life in exercifing Practice, before they attempted to comment upon Hippocrates's Works: For that Author's Works being nothing elfe but the pure Juice of Practice, a suitable Interpretation cannot be derived with more Certainty from any other Source than the very exercise of Practice. So that 'tis no wonder that the Commentaries of a Person whose Knowledge is superficial and not very near allied to the Subject in hand, should prove more obscure than the Text. A great many usurp the Name of an Interpreter, who in effect are unworthy of that Title; for upon a narrow view of their Commentaries, we don't meet with the Explication of an obfcure Meaning, fuch as is necessary to let the Reader into the Author's Senfe; all their Periods are stuffed with a bulky show of Learning, an oftentation of the Geeek or Hebrew Language, and an infinity of Quotations of Authors and Sentences that have no ufeful relation to the Subject: Besides, the Text is sisted and explain'd, not according to the ballance of Truth, but pursuant to the measures of the Prejudices to which those quoted Authors or the Interpreters themselves are liable.

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Commentaries do oftentimes fasten several O pinions upon their Authors that they never fo much as dreamed of, with a defign either to proclaim to the Learned their Acuteness in the way of Commenting, or rather to favour the Rules of that Hypothesis to which they have retained

from their Youth. Now fince Interpreters lie under these and other Errors, and are so far different from the other three we commended but now, we had better construe Authors according to our own Sense, than crowd and disturb our Mind with foreign Fallacies. For fometimes the Avenues and Passages of the Mind are so obstructed by the obscure and irregular Idols of Commentaries, that they can scarce afford clear room to the genuine and natural Rays of the History of Diseases, which dart in upon us from Observation. But after all, by this way of speaking I don't mean to scare Physicians from writing Commentaries, but only to oblige 'em to do it with Judgment. In earnest, when I fometimes confider of the Caufe that has laid fuch levere Fetters upon the Practice of Phylick, and hindred its progress from its present deplorable Straits into the wider Bounds of Nature. I have nothing elfe in view but the prepofterous way of Commenting, and the tedious and unnatural Study of Physicians in prying into the Works of the Arabians more than into those of Nature: For that Method of Studying having reign'd for these two last Ages in a most all Universities, and there being no body to give the feafonable Admonition, tis no wonder that Phyfick being by this means pluck'd up from its Roots, does at this Day neither exert its Power, nor grow up like a thriving Plant; but, on the contrary, breaks thro' and overturns the ludgments of Nature, by the shadows of Words, by popular Observations, and by noble Experiments turn'd into a fabulous Theory. situal short hard tools

These and such like Absurdities will be avoided by those who heedfully mind the following Cautions. In commenting upon Practical Books we should take the Interpretations of Nature for a Pattern; and upon that score we may imitate the incomparable Interpreters of Hippocrates, whom we commended above, and who have retriev'd the primitive Majesty of genuine Commentaries and laid it open to Posterity. We ought not to run too far out in Panegyricks upon our Authors, but to observe a Regard to the opportunity of Place, Time and Merit; and where our Adversaries have spoke well, we ought not to tarnish their Sense by a malicious Interpretation. We should neither design Violence nor lay Snares against the Judgments of Men, by foilting in Disputes that are remote from the true sense of the Text, and are design'd rather to procure Praise and Veneration to ourselves. than to unfold Obscurities. Our Interpretations must be free of that Confusion which oftentimes breaks the Thread of the Doctrine and of the genuine Sense; for the Truth will sooner mine out of Falshood than out of Confusion. The Idols of the Mind, the Prejudices of Hypotheles. and Preconceptions drawn from other Sciences, must be entirely laid aside; by which means we may easily discover the mutual transitions of Errors into Truths, and Truths into Errors. A Commentator must be indifferent as to Novelty and Antiquity, neither of which is to be laid in the Ballance with Truth; for what is Ancient or Modern, is not therefore true or falle, as some Physicians imagine, who by that means give rife

to Dispute and Contention. The Author commented upon, ought to fuffer neither Detraction nor Addition, but to be presented entire and like himself; nay, his Meaning should be so exprest, that his own Virtues may speak his Praise, and his own Vices proclaim his Difgrace. It must be exprest Word for Word, and the very local posttion of the Words must sometimes be retain'd. especially upon a Matter of great Importance and Obscurity, such as we meet with in several Texts of Hippocrates's Works. An Interpreter mult not assume the Office of a Judge, so as to reject what he does not like, and substitute his own Advances in their room: And indeed the greatest part of Interpreters are guilty of this Crime, by which, as any Reader may eafily perceive, all Sciences, and especially Physick, have been much injur'd. Farther, An Interpreter must avoid contradicting the Author; and he must not be too apt to doubt. Indeed upon the obscurest Texts, he may proceed like the Academicks in making Queries of every thing, and affirming nothing for a certainty, till after a long and patient Confideration; and if, after all, he can't come at the fense of the Text, he had best leave it untouch'd, to be examined and explained by fome happier Genius. The Interpreters who are arm'd with those and the like Cautions, will do Justice to themselves and their Authors, and happily go through their Task. Having thus detected the Errors of Interpreters, our Method would lead us, in the next place, to fall upon those who obstruct true Practice by the coining of new Systems: But in regard we have allotted a whole Chapter for that Subject, in the latter part of this Book, we think it more proper to wave it at present. CHAR.

GHAP. IX.

The discontinuing of the Aphoristical Way of treating Diseases.

SEC.T. I.

A Mong the Hindrances that have retarded the progress of Physick, that is not the least, which consists in tying it up to Methods, and in digesting and adorning it with abstracted and useles Notions. For that methodical Way gives out the Science to be entire and reduced as twere to a me plus ultra; the consequence of which is, that Men are rendred not only lefs industrious in hunting after new Discoveries to illustrate and enrich the History of Diseases; but likewife fo felf-confident, that they fancy they have already reach'd the very bottom of the Science. And tho it sometimes happens, that a new and useful Observation may fall in their way; yet upon the consideration that they cannot accomodate it to their Method and Way of Division, they throw it away and contemn it as being foreign to their Profession. This makes it out, that our Ancestors behav'd themselves more prudently. They knew very well, that Method and regular Partitions might illustrate and enoble Med'cine, but at the same time they were senfible, that at that rate it could not be confirm'd, or arrive at a higher pitch. Accordingly, whatever Discoveries they made upon Diseases by a long course of Observation, these they threw into Aphorisms or short Sentences, ty'd up to no Rules of Method or Scholastick Subtilty; but clearly and openly deliver'd. By this means they chalk'd out to Posterity, both the naked Images of Inventions, and the void Spaces left for the infertion of the new and ever multiplicable Voices of Nature. Now, this so necessary a way of promoting Physick, is at this day quite in disuse. For the modern History of Diseases, tho' at first view it may feem to be copious, yet in effect 'tis barren and unprofitable; nay, if we confider the tedious digressions to Philology, the superfluous Narratives, the hungry Questions, and such other Trifles that accompany it, 'tis really infirm and corrupt. For, if we except those few Observators who have mightily enlarg'd the boundaries of Medicine, by a diligent and natural description of the Medicinal Cases and Histories; all that the rest have added, with relation to their falle Theory, and fuch other Trifles, has rather cramp'd than promoted its progress. Now the way of fetting down the folid and repeated Observations of Diseases in a short and aphoristical Stile, will sufficiently appear from the succeeding Diseases, which were examin'd by patient and repeated Observations made in the Italian Hospitals.

Of a Pleurify.

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If you would discover a Pleurisy, place your chief Care in observing the nature of the Pulse. The hardness of the Pulse is almost an infallible Sign of all Pleurisies; and while the Pleurisies are fudden

fudden, or complicated with other Diseases of the Breast, if you observe a hardness in the Pulse, i.e. too great a distention or vibration of the Artery, tho the other Signs are absent, you may assure yourself that the Patient is under a Pleurisy; for a hard Pulse is an inseparable Companion of all Instammations upon the Nerves or membranous Parts.

Having thus discover'd the Pleurisy, during the whole course of the Cure, mind nothing more diligently than the difficulty of Breathing; for the Pleurisy is more or less hazardous according to the greater or lesser difficulty of Resultation.

A good Respiration is a good Omen, but a bad one is always to be dreaded. Thus we find that Respiration is rendred more difficult as the Pleurisy increases, and upon the approach of Death its difficult to the last degree. But Prognosticks taken from the Pulse are not so certain; for in the Diseases of the Breast, nothing departs sooner and more easily from its natural state, than the Pulse. I have frequently observed an Intermitting Pulse in a Pleurisy, without any danger; and once or twice I order'd Bleeding, notwithstanding the Pulse was in that condition, because the Indication of Bleeding was too urgent.

Such Pleuritical Persons as were seiz'd with a Pain in the inner part of the Ear, followed by an Imposthume and Pus, were all cur'd, pursuant to my repeated Observations in the Italian Hospitals; but especially in Rome, in the beginning of the Year 1694, at which time the Winter was severe, and attended with Frost and Snow, which in Italy are unwonted, and that gave rise to raging Pleurises.

After the ture of a Pleurify, if you observe a little tickling Cough, and a gentle Heat over-naming the whole Body towards the Evening, you may prognosticate either a Relapse into a Pleurify or a Suppuration. I have found this noble Precept of Arctaus to prove true in several Cases, where I predicted accordingly.

Such Pleuritical and Peripneumoniacal Penions as spit up nothing, are in a hard Case, unless

they void Urine plentifully. Hipp. 4. acut.

In the Roman Climate Bleeding is the principal Remedy for a Pleurily, after which diluting Medicines, Joined to attenuating and anodine In-

edients will quickly fet it of

Sometimes little Tubercles or finall Swellings will lie hidden in the Lungs for feveral Years, without annoying the Patient sensibly; and will at last discover themselves after the cure of a Plenrify, or a Quinfey, or a Fever. Therefore, if after the cure of any Fever the Patient is feiz'd with a Pain in his Side or Back, or any other Part of the Breaft, together with a difficulty of Respiration, so that he cannot breathe without keeping his Neck upright, in that Cafe the Tubercle is turn'd to an inflammation, and tends to Suppuration, which must immediately be taken care of. This Caution of Dodonaus's I have obfere'd to be just in two Instances in the Hospital. after having diffected their Corps and confidered all Circumstances.

In a Pleurify, when an Indication of dissolving appears, Camphyr and the Remedies prepard from it, are almost an infallible Secret for performing that Office, especially if the Pleurify is epidemical and malignant, or rather occasioned by an extraordinary thickness of the Blood. If the same Indication continues, about an Hour after

the exhibition of the camphorated Medicine, let the Patient drink a pectoral Decoction of the Roots; for instance, of Masterwort, Angelica and Coltsfoot, and the Leaves of Scapious, Coltsfoot, &c. The Decoction must be drunk not on warm, but very hot, that the elaftick and active Parts of the Roots may be convey'd in a full Stream with their entire Vertues to the affected part of the Lungs. The exhibiting of Liquors very hot is to me a fearer for diffolving stubborn Viscosities in an epidemical and malignant Pleurify, as well as in all other Difeases of the Breast proceeding from the like Caufe. For I have feen Patients in a manner livid for want of Respiration, who have been quickly relieved by repeated Draughes of a pectoral Decoction taken down very hot.

As the accession of a Looseness is healthful in the Diseases of the Head, so its very permicious in those of the Breast, especially if they are acute. For this reason, we must avoid Purgation in a Pleurisy, and take care the Body be not rendered too soluble by a repeated use of Glysters; for by these means the Disease will be exasperated, the Spirting suppress'd, and the Symptoms will

be inflam'd to the Patient's ruine.

After the cessation of the Pain of inslam'd Parts, (especially in the case of a Pleurisy or the inslammations of membranous Parts) if the Fever still continues, or increases, being attended with a low, intermitting and frequent Pulse, cold Sweats, Or. 'tis a fatal Omen; for in twelve Hours time the Patient will turn Delirious and soon after expire; the Inslammation having terminated in a Gangrene. This Caution we owe to Hippocrates, and I have seen three Instances confirming it in the Hospitals.

Pleu-

Pleurifies are frequently unperceiv'd, because they are Painles; and this gives rise to gross Mistakes in the way of Practice. In order to discover these occult and indolent Pleurifies, make the Patient lie down upon his right or left Side, and after he has fetch'd his Breath with force, and cough'd once or twice, ask him if in Breathing or Coughing he selt no Pain or Heaviness in any part of his Breast; and assure yourself that a Pleurify is seated in that place where he seels the Pain or Heaviness. By discovering Pleurifies in this manner, I have benefited many Patients.

The Relapses of Pleurisies are, almost all of em, mortal, according to Hippocrates; that is to say, if the Pain and Fever having ceased, for instance, on the fourteenth Day, return again on the twenty first, or any other Day, that Relapse Hippocrates calls Mortal. But if only the Fever returns, without any Pain in the Side, the Case is not so desperate. Tho, after all, the Relapses of Pleurisians.

rifies are always to be dreaded.

When an Inflammation of the Pleura or Tubercles in the Lungs, terminate in an Imposhume which turns to Pus, then a violent continual Fever is followed by an intermitting Tertian or Quotidian, commonly about the seventh Day, which is a certain Sign of the beginning of the Imposhume; as the learned Dr. Morton, in his noble Treatise of the Phthsick, gathers by Experience out of Hippocrates.

Pleuretick Persons are happily cur'd by meer Expectoration, and whoever goes prudently about that, will quickly find that, the Pleurisy gives way: For Sweating and the other Evacuations are not so beneficial, because they do not evacu-

ate the affected Part.

If the Spitting commences before the 4th Day, it shortens the Distemper according to Hippocrates; for after the 4th Day, the Patients Strength being exhausted, and the Spittings being thicker, they are not so easily brought up, upon which the Disease is inflamed.

Those who exhibit Purgatives in the beginning of Pleurisies Suppress the Spitting, and instance both the Fever and the Distemper. And those again who give strong Diaphoreticks in the beginning, occasion a Delirium, or some other vehement Disorder of the Head.

In the regular Discussion of a Pleurisse, the Fever ought first to cease, and then the Pain of the Side; but if after the cessation of the Pain, the Fever remains or increases, together with the other Symptoms, the Patient is in a bad Condition.

If in a Pleurisie the Spitting returns after twas once stop'd, and is of a reddish yellow Colour, never prescribe Bleeding; for after Blood-letting the Spitting will stop, and the Patient will die. Of which I have seen four or sive Instances, in the Hospital.

If after a regular Spitting, the Patient spits no more, tho' the Heaviness and Pain of his Breast continues, 'tis a pernicious Sign. 'Tis certain that no Pleuritick Person was ever cur'd whose Pulse was very hard, and for that reason small, and very frequent. Galen. lib. de Pracogn. ex Pulsu and in several other Places.

In a Pleurisie Loosenesses are pernicious; in which case I have frequently exhibited the following Bolus with very good success; Take of Requies Nicolai and Diaphoretick Antimony of each a Scruple; mix and make Pills to be taken at Night. For the Opiat stops the Looseness,

and the Antimony throws out the Humours to the Skin, pursuant to Hippocrates's, Maxim, Alwi laxinas, Cutis Densitas; when the Belly is look the Pores are stop'd, and e contras: Wherefore, if the beginning of a Pleurise is attended with a Lookeness, prescribe the foregoing Bolus, immediately; and after the Lookeness is stop'd, order Bleeding if there be an Indication for t

In the beginning of a folitary and exact Pleurisie the Spittings are but very Scanty, the Pulse

hard and frequent, and Respiration short.

If a difficulty of Breathing and Expectorating happens on any Day, whether the 2d, 4th, 5th, 7th, &c. either before or after Bleeding, I prefently clap a couple of Blisters to the Legs, purfuant to Hippocrates's Caution, In Pulmoniis quicunque tumores fiunt ad crura optimi funt. I have still observed, that the Application of these Blisters promotes the Expectoration, facilitates Respiration, and stops the Looseness, if there be a

ny; and foon after the Patient recovers.

In a Pleurifie, Peripneumonia, and fuch other Inflammatory Diseases, if the Blood drawn out of the Vein, has not a white Crust on its Surface, it a pernicious Sign; for in that Case, the Substance of which the Crust is composed, remains in the Lungs, and stuffs em up; upon which the Fever, Inflammation, difficulty of Breathing, and other Symptoms do quickly increase. If at the second Bleeding this Crust begins to appear, it a good Omen; But if it does not appear, even then you must give over Bleeding, or else you'll kill your Patient; For sepeated Bloodletting robs the Blood of its more volatile Part, and so disposes it the more for Congulation. This Caution was communicated

to me by the Learned and Humane Langifus, formerly Physician to lumotent XI.

Such Pleuritick Persons as have a noise of much Phlegm in their Breast, a sad Countenance, and a golden Tincture upon their Eyes, are in a desperate State. Hipport. Coac.

In the Declention of the Pleurifie, if the Abdomen fomerimes swells with Wind and sometimes falls, it is a good Sign; for commonly the Patient is surd about the toth Day.

Of Fevers in General.

In the beginning of acute Fevers abstain from Purgatives, and from over Volatile and Violent Remedies; for the Disease being yet Crude, you'll either throw out what is not to be evacuated, or inflame the Fever, or stifle the Patient.

Let no Catharticks or violent Diaphoreticks be given before the 7th Day; for the peccant Matter is yet Crude, and mix'd with good Juices, and does not yield to such Remedies till the Signs of Concoction appear.

In continual Fevers, if the Veffels he over turgid, if the Blood runs impetuously to the Head, Lungs and other Members, and threatens a Phrensy, if Youth and a hot Temperament be added to the other Symptoms; in this Case be sure to let Blood in the beginning, that is, before the 7th Day, and repeat the Blood letting according as the Symptoms require: For the Veffels being by this means empty'd, and the Mass of Blood as twere loosen'd, you make way for the Diaphoreticks, Purgatives and such precipitating Remedies as are proper in the Status or Height of the Distemper.

F 2

If you have the least suspicion of a Malig-

Bleeding like a Plague

I have observed that Vomits are more or less proper according to the Variety of Countries and Climates. At Rome we do not find em so safe in Fevers, as others do in the Northern Countries; so that in prescribing Remedies, you must always have in View the Nature of your Climate, and the Temperament of your Country-men; and never prescribe out of Books without a nice regard of these.

In acure Fevers, the Physicians are blamable for two Things, namely, a confus d and overbulky medley of Medicines, or else unseasonable and immethodical Administration. Hence is it, that the Patients lye under so many Inconveniencies, that the Periods of Diseases are so various and inconstant, and their mutual Permutations Incredible. These the Ignorant Physicians impute to the Nature of the Distemper, and not to their unsteddy and speculative Methods of Cure: But time will undeceive us yet further.

In this Climate (Rome I mean) I commence the Cure of acute Fevers with Bleeding, and not with Purgation, unless it be attended with an excessive Vomiting, or usher'd in by an immoderate Repletion: And I have frequently observed, that immediately after Bleeding there insues a fort of Sweat to the ease of the Patient.

An exquisite semitertian Fever is very common about this Town; nay, it reigns a most at all Times: Which Galen was not Ignorant of, when he liv'd at Rome near Minerva's forum, in the Street that leads now to Agrippa's Pantheon, in the Reign of the Emperor Amoninus, a Prince to whom not only Galen, but the whole Republick of Physick, are considerably indebted. Tis said, that when Galen made the first Theriaca at Rome, to the great Satisfaction of the People, this Prince presented him with a Golden Chain, and a Medal with the following Inscription,

ANTONINUS ROM IMP. GALENO MEDIC IMP.

But to avoid Digressions: Experience is witnels, that Semitertians are very brief here; and Galen, as I said above, affirms the same thing; de loc. com. 25. and de morb. temp, towards the end. And now that I am speaking of a Semitertian, twill not be improper to infert the Words of the Learned Fontamis upon that Head, which you may read in his Commentary on Dedonaus. This Fever, says our Author, affects the Ven-"tricle, especially its Nervous Parts, and the Liver; and for that Reason I think 'tis justly "lifted into the number of mortal Diseases. "Oftentimes it degenerates into a Hectick, or "brings on a Dropfie, by reason of the great "Obliructions; as Hippocrates observes, I Epidem com. 3. Aph. 5. &c. This Fever is very common among the Clergy, the Nobility and the Courtiers; among Young Men, and fuch as lead a flothful Life, whilft they live high; " among those who Pamper and Humonr themfelves too much, and among the Inhabitants of hot Countries; in puluance of which, we find they're very frequent in Æthiopia and Italy.

Now a Semitertian advances in this Order. A fresh Paroxylm attacks the Patient every Day:

but one day tis feverer with a redoubled Shivering, and the other tis milder as every one may observe. Tis a long and dangerous Disease, and commonly attacks Men or fuch Youths as are upon the Borders of Manhood, and that in the Autumn. The Stomach is chiefly affected; and the other Symptoms are sometimes a Lethargy, fometimes Watchings, the Tongue dry and par-

Since I am speaking of Fevers, I can't but mention my Surprisal, in seeing most Physicians derive the Origin of Fevers from an Acid, and endeavour a Cure by Antiacids, to the great Detriment of the Patient. For if we take a right View of the Matter, we shall find that Alcalies variously alter dare rather in the Fault; for whatever is done in a living Body, especially in the Blood, is brought about by Fermentations, which being repeated again and again, raisd to a higher pitch, or unduly alter'd, produce Plenty, not of Acid Parts, but of an Akali, Lixivious, Sharp and Calcin'd Salt, or the like : This we observe chiefly in Fevers, in which we meet with manifelt Marks of Sharp Alcaline, Lixivious and Calcin'd Salts, and oftentimes make a happy Cure only with diluting Med cines, qualified with a gentle Acid; Witness, the Ardent Fevers. For this Reason, I can't but extol the Sovereign Vertue of the Chiffus of Autimony, which by its subacid Quality stiffes in the Bud, many Fevers oca more ardent Nature. The Fevers that rage at Rome in the Summer Time, upon the change of the Air, (not to mention the Errors of Diet, that are frequently committed in rambling out to take the Pleasure of the Country, which fremently gives rife to these Fevers, without any influence

influence from the Air) the Summer Fevers, I fay, proceeding from a change of Air, are produc'd nor by Acid, but by Alcaline sharp Salts; for the various Particles of the Earth and of Minerals, being rais'd up into the Air by the Heat of the Sun, are there attenuated by the Accessiof fresh Heats, and fo cohobated and volarilized as to assume an Intense Volatility and an Alcaline tharp Nature rather than an Acidity. The Particles thus Volatifiz'd, being communicated to the Blood by Inspiration, do first dissolve its Mass, and the Diffolution is presently followed by the Effects of Coagulation. For the Truth of this we Appeal to Experience; For Acids, even those of the strongest Class become either fweet, or inlipid, and Acal's, after a Fermentation, whether rais'd by the Sun, or occasion'd by an intelline Motion of long Duration; for the Fermentation breaks the Edges of the Acid, and converts the Acid into an Alcali. Accordingly we fee Treacle-Water, which at first is Acid, bevery Acid Spirits dulcifie of themselves by being long kept: And fo of all the relt. But after all, I don't deny that Acids produc'd in the first Passages and communicated to the Blood, may fometimes put it into an irregular Fermentation; tho at the fame Time I must say, these Acids must be over and over Violent: for otherwise their Edges would be so broken by undergoing repeated Fermentations with the Blood, that they would of necessity become Alcali's, and so either prove Inoffensive, or by assuming the Nature of a Morbific Alcali diforder the Parts and give rife to Difeases: Which was the Conclusion I offer'd to prove. But of this more at large in a particular Treatile, intituled Acidum Infons.

F 4

Of the Worms in Children.

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Let the Diseases of Children be what they will, we ought always to suspect Worms. For they either directly feed the Distemper, or in the Progress of it, the latent Worm-brood is stirred up, and gives plenty of Worms.

Children and Persons of a Phlegmatic Pituitous Constitution (as they call it) are more subject to Worms than Adult and Choleric Per-

fons.

When Children are much given to the wringing of their Belly with their Hands, tis a fign of latent Worms; but if they are likewise troubled with Gripes, the fign is much furer.

There's a just occasion to be jealous of Worms when Men are taken desperately ill all on a sudden, without any manifest Cause, and without the Symptoms that accompany other Distempers; when they are feiz d with Apoplectick Fits, with a Coldness in their Limbs, a very low Pulse (which is almost always a fign of latent Worms as well as fighing) a Speechlefness and sometimes unexpected Madnels. In fuch Cafes there's nothing better for adult Persons, than to exhibit out of Hand in Broth twelve Grains of Mercurius dulcis and fix Grains of Scammony fulphurated. For Children the Dose must be lessen de or which is yet better, you may give em crude Quickfilver to the bigness of a Pea with Broth; for it operates miraculously. Chesnau.

In the Diseases of Children we have always an eye to Worms; just as in the Diseases of Women we have still a regard to the Menstrual

Flux and Histerick Fits. Generally speaking in some stubborn Diseases, both of Men and Women, and such as observe no peculiar Period, we suspect a venereal Contagion, which now adays is either Hereditary, or deriv'd from the Nurse's Milk, or being once fasten'd upon the Blood by the Sins of Youth and the course of humane Frailty, is never afterwards extirpated, but starts up of a sudden under the mask of divers Diseases, and creates a great deal of Trouble to the Physician; whom I would advise to be wife and sagacious.

Take of crude Mercury right cleanfed, an Ounce, Grass-Water and Purslain-Water of each four Ounces: Macerate for two Hours, stirring often and tightly; then decant and strain the Water, leaving the Mercury in the Vessel. There is not a better Remedy than this against Worms; Witness Dr. Bates the English Physi-

cian.

To awake all on a fudden with a trembling, especially among Children, is taken by the old Women for a certain sign of Worms. But the same thing happens in Eruptions of the Measles or small Pox, as Chesnau teaches us; which I have frequently observed in my own Practice.

The Colick in Children springs very often from Worms. Matthew's Pills, I mean those which in England are call'd Starkius's, are very much cryst up for mitigating all sorts of internal Pains; but whether that Vertue extends to the Worm-Colick, I have not yet met with any thing in Books to inform me. But of these more anon, when I come to discourse of the Colick. They are sold at Rome by Mr. Girotti an Apothecary.

Worms skulk oftentimes in the Cavities of the Gut Colon, which are fometimes very hard to be reach'd by Med cines; and thence it comes to pals, not unfrequently, that the very belt of Remedies fall short of the desir'd success in the Cure of Worms.

Drops of Blood illuing from the Nostrils in continual Fevers, are sometimes a Sign of latent Worms, according to the most Judicious

Authors.

zarro W

If you have but the least suspicion of Worms, I would not have you to delay the exhibiting of proper Remedies, for we have frequent Instances, in which they suddenly carry off not only Chil-

dren and Infants, but even adult Persons,

In the Year 1694, I joyned with a Friend of mine at Rome, in making an Experiment upon Worms, and found that live Worms put in the Spirit of Wine, and in the Water of the Infufion of Worm-feed, dy'd after five Hours: when put into Wine or into the Solution of Aloes, of the extract of Germander, and extract of Tobacco, they dy'd after nine Hours. At nine a Clock in the Morning we put fresh live Worms into the Oil of fweet Almonds, and found them alive the next Day, only they were in a drowfy languishing Condition. Some we put into the Inice of Lemons, and found them not only alive but very well the next Day, as well as those we had put into a Veilel half full of Quickfilver, observing that in this Vessel and avoid ed the contact of the Mercury, and used their utmost Efforts to get at the Head of the Veffel, and to almost the amost the Albert Phoward Poul at Rome of the Greetle of

Of the Small Pox and the Meafles. which the means of some classic the importance of the colors of the colors and the colors of the col

Among Acute Diseases the small Pox make no inconsiderable Figure, and in regard the Mass of Blood is then inflam'd, and as it were fet on Fire and blown upon by a Malignant fort of Air. a Phylician stands in need of a great deal of Learning, Prudence, and Sagacious Patience in managing the Cure; nay, he is bound religioully to observe the Motions of Nature or elfe he will fall into pernicious Mistakes.

Those who purge in the beginning of the Small Pox, or exhibit violent Diaphoreticks, do frequently add fewel to the Fever, and excite internal Inflammations, Delirium's, inflammatory Diforders of the Lungs, most violent Coughs, and a great many fuch like Symptoms.

The cruption of the small Pox is the Work of Nature; for which reason Nature ought to be obey'd, and its Motions humour'd and back'd by feafonable Remedies. In earnest, in the Cure of Difeases, especially such as we call Acure, a great Part of Wisdom lies in keeping our Minds untainted with the prejudices of Sciences, and our Theory clear of the Errors of the Schools, as well as unbyass'd by Humour and Inclination; and in taking care not to thwart the Motions of Nature by unfeafonable Remedies.

If the Blood boils too high, if it flies up to the Head with a rapid Current, if Inflammations of the Viscera and Delirium's are at Hand in fuch Cases I instantly let Blood, and that in a Quantity answerable to the Urgency of the occasion. In the mean time, I prescribe the Gelly

Gelly of Hart's-horn, the Emulsions of the Seeds with Water of Violets, the Oil of sweet Almonds with Broth qualified with the cold Seeds; by which means I partly check the impetuous Force of the Blood, and keep it from ranging beyond the Bounds of its Channel. This Method I continue to the fourth Day, at which time, if the Small Pox begin to appear, I shift and second the Motion of Nature with gentle Diaphoreticks, such as the Gelly of Hart's-horn, the and carefully observing Nature's Progress, I give a various turn to my Med'cines, pursuant to the various impetuosity or mildness of the Humours.

About the fourth Day, if the imminent Eruption affects the Head with great Heat, Anxiety, startings of the Tendons, Or. I immediately order scarified Cupping Glasses to be applyed to the shoulder Blades, whereupon, there follows a present Révulsion of the raging Blood, the abovemention d Symptoms are stifled in the Bud, and soon after the Small Pox come happily out.

If the Blood drawn from the Veins, shows upon its Surface a white large and gross Crust, such as we meet with in all Inflammatory Disorders, it speaks that the Small Pox will be numerous and very dangerous. This I have seen frequently, and have heard it inculcated by the learned Physicians that attend the Hospitals in Italy; and I recommend this and the abovementioned Hints to the Reader, as being the product not of pleasant Speculation, but of patient and stern Observation.

and if the Hipocondria be distended, I order Spunges soaked in warm emollient Decoctions to be applied to the Palms of the Hands and

Soles

Soles of the Feet, and by that means the Symptoms are much abated.

The Diaphoreticks prescrib'd after the fourth Day, must be more or less Active, in proportion to the greater or lesser Accension of the Blood, the Degrees of its force upon the Head, Lungs, and other Viscera, and the Urgency of other Symptoms.

A flow lingring Fever, without shivering or cold Fits, a heavy dulness under Sleep, a pain in the Head and Back, sometimes a Hoarseness, sometimes a Bleeding at the Nose, are Signs of the approaching Small Pox: Witness Dodoneus in

Praxi. Cap: 20. Lib. 2.

In the Diseases of Children, we ought always to be jealous of two Things, namely, Worms and the Small Pox; and we ought never to be positive of the Nature of their Fevers, till after two or three Days, that we may be sure as to the

Small Pox, &c. When the Small Pox are a coming, I have obferv'd the Fever that ushers them in exasperated with violent pains in the Back. Convulsive Motions in the Fevers of Children, that have not had the Small Pox, foretel that the Small Pox will

appear next Day: Witness Doctor Sydenham's infallible Experiment.

We conclude therefore, that a very acute Pain in the Back, some convulsive Motions, a Cough, watry Eyes, &c. Foretel that the Fever will be of that Sort which retains to the Small Pox.

An unskilful Management of the Small Pox, produces inflammatory Diforders of the Breaft,

and fometimes a fudden Suffocation.

Those who Spit much in the Small Pox, seldom dye of them; nay, I never saw them carry off one, that had the Benefit of Spitting. Valschmid.

If an Infant is feiz'd on a fudden with Epileptick Fits, it speaks either Teething or the Small Pox; and if the Small Pox appear after the Fit. they are always of the milder fort, and feldom

run together

Take of the Oil of fweet Almonds, two Ounces; Sperma Ceti, three Drams; diftill'd Oil of Rhodium, four Drops: Mix, and make an Ointment according to Art : This is an admirable Remedy for defacing the Pits of the Small Pox : it mitigates the Pain, takes off the Acrimony, Oc. As the Learned Doctor Bates has well obferved.

If Adult Persons are not well taken care of in the Small Pox, they oftentimes dye Frentick; So that in such an Age, the excessive Heat ought to be discreetly check'd, to prevent its violent fluence upon the Head montado subana adi in avis

Of the Colick. When the small Pay one a combiner I have also

fer the Hever energy Must them in excipenced

with violent hear in the Buck. Countline Mo-A bilious Colick is frequently attended with Absence of Speech and a Hoarse Voice, which last during the whole Course of the Distemper This Hoarfness uses likewise to appear in bilious Fevers, fo that we may justly reckon it a Diagpostick of such Diseases as spring from the Bile. or from the Salino fulphureous and adult Particles of the Blood in a surpre hold a mid and ho

In a flubborn Colick if there comes a Copious and Universal Sweat, with an extream Weakness, you may Prophesy the speedy arrival of a

If an unequal Distention, and Constipation of the Belly, and a stiff Contraction of the Muscles, accomaccompanya Colick; 'tis a Sign the Nerves are

affected rather than the Intestines.

The readiest consequence of a Colick is a Palfy; and therefore you must be very cautious in exhibiting large Quantities of Opiats; for they use to be followed by plentiful Sweats, and then a Palfy.

Chamomile is the true Antidote of a Colick, from any Cause whatsoever; especially, if it comes after a Sudorifick of Harts-horn Philosophically prepard, Diaphoretick Antimony, and

the Powder of Unicorn's Horn.

When you use Opium in a Colick, be sure you always add Castor; for it corrects the Narco-tick Vertue of the Opium, and allays the Pains.

I have frequently tryed the good Success of the following Pills in a Colick, proceeding from the Viscidity, grossness and preternatural Acidity of the Aliment or Humors in the first Passages. Take Powder of Rue, and Sal Gem, of each equal Quantities, skim'd Hony a sufficient Quan-

tity to make a Mass.

I must likewise recommend to you the following Powder for an Arcanum. Take of the Powder of the Leaves of a wild Fig-tree that grows upon the Ground, and not upon a Wall, half a Dram; Elm-leaves pulverized a Scruple. Mix and Exhibit in Broth. Twill lay the Pain immediately. This very Powder taken in White-Wine is a Specifick in Nephritick Pains, only the Quantity of the Elm-leaves ought then to exceed that of the Fig-leaves, whereas in a Colick the Quantity of the Fig-leaves is largest.

In a stubborn convulsive Colick, and spassiodick Pains of the Belly arising from a sharp gnawing Matter, especially if accompanyed with Thirst, driness of the Tongue, and an univerRemedy, when all others fail'd me, than Bleeding in the Arm, and a diluting Anodyne alter'd chiefly with Chamomile. After Venæsection, I have seen the pains presently stifled and Glysters immediately thrown out that were kept up before by the spasmodic Contraction of the Fibres of the Intestines. To this purpose is the Observation of Spigelins, who in dissecting the Corps of such as dyed of Semitertian Fevers, and had been tortur'd with a dismal Pain in the Belly, as if it had been a Colick, found the Intestines instam'd and overun with a St. Anthony's Fire: in which Case, to omit Bleeding and substitute Purgation in its room, as 'tis commonly done, is a very pernicious Practice.

The Colick Pain abates a most always in a Bath, and therefore you ought to have recourse

to a Bath, when the Pain is obstinate.

The Belly-aches occasioned by walking barefooted upon the cold Floor, are quickly cur'd, by applying hot Bricks to the Soles of the Feet; for the Pain in the Belly decreases as the Hear

of the Feet increases.

I have observed an odd fort of a secret and unexplicable Sympathy between the Diseases of the Belly and those of the Skin. I have seen Colick Pains turn to Arthritick; and Arthritick Pains, on the other hand, taken off by the accession of a Colick or a Loosness. To this purpose we find Hippocrates said; A loose Belly makes a thick Skin, and a thin Skin makes a constipated Belly. And accordingly we experience in our Practice, that stubborn Loosenesses are readily car'd by Diaphoreticks, when other Med'cines prove inessectual.

If the Excrements are not retain'd, if the Pain shifts and intermits, the Patient will quickly be well.

A Colick turns fometimes to an Imposthume,

and sometimes to a Dropsie.

If the Pain relents upon the Expulsion of the Excrements or of Wind tis a good Sign, not-withstanding it returns again. In a Colick accompany d with a Vomiting, cold Sweats, Oc. when every thing else fails, the Tincture of Amber, both cures the Present and prevents the imminent Fig.

Before you exhibit Opiats, be sure you always inject a Glyster. Diaphoreticks joyn'd to Opiats are happy Anticolick Med'cines. But you'll do your Patient no kindness, unless you carefully distinguish between a Humoral and a Convulsive Colick, All cold things are unfriendly to the Breast and the Intestines; be sure therefore that you avoid 'em in the Case of a Colick

An habitual and endemial Colick arising chiefly from the Acid of Wine, is cur'd by Sudorificks alone, provided an Anodyne Remedy be interlac'd in the Evening. In such cases, I commonly make use of a Pill made of Diascordium and

Confectio Alchermes, or Hyacinthina, &c.

Matthew's (alias Starkius's) Pills are incredibly Beneficial in all Pains whether Internal or External. In venereal Pains I use to mix with em Gum, Guiacum and Mercurius Dulcis, and prescribe our Antivenereal Decoction to be drunk above it. The Composition of these Pills is to be met with in the Dispensatory of Doctor Bates an English Physician.

Sometimes Purgatives are of good Use in a Colick, especially if its not attended with a

Vomiting and a Fever; and if they are given in a fiquid Form. In my own Practice I commonly prescribe a Dram of the Powder of Cornachini, ordering to be drunk above it Broth qualify'd with Chamomile Flowers.

When the Colick Pain is fix'd to one Place, and accompany'd with a Fever, it uses to terminate in an Imposthume; but if the Pain shifts, we

meet with no fuch Thing.

mi on amount Of a Frenzy.

SECT. I.

In the Climate of Rome I have observed, that Blistering Plasters apply'd to Frentick Persons, kill'd more than they cur'd, or at least did more harm than good: But in a Case of this Importance we ought not to pass a rash Censure.

In the same Climate I've observ'd, That Blistering Plaisters apply'd to delirious Women were more beneficial to them than to Men; and that several Women in that Condition got happily

through.

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If a Delirium is threaten'd or appears already, instead of Blistering I use to open a Vein in the Foot, or else the Salvatella in the Hand, and then prescribe diluting Med'cines of the cold Seeds, Melons, &c. By which means I've seen the Dilirium quickly check'd.

In acute Diforders a black Tongue is a most

always followed by a Delirium.

When the Patient is Delirious with an acute Fever, a parch'd Tongue, and the Signs of a great Inflammation upon the Vifcera, if you then apply Bliftering Plaisters, all goes wrong and generally he dies in Convultions; whereas

if you breath a Vein in the Forehead or Arms, and then allow a liberal and continued use of diluting Med cines, you'll easily compass the Cure. But of this more at large in our Treatise de usu

& abusu Visicantium.

If a Loosness insues upon a Detirium, especially when the Disease tends toward a Concocion, it gives a happy Solution; and I have oftentimes observed, that delirious, restless and anxious Patients, have been much better, in a Days time, after the accession of a Looseness. Going upon this repeated Observation that a Loosness takes off a Delirium. I trace Nature's Steps, and have try'd oftner than once, the good Service of the Powder of Cornachini, ordering to be drunk above it large Quantities of diluting Med'cines, of the Decoction of Barley, Filings of Harts-horn, Sal-prunel and other dulcifying Ingredients; especially if there be a great heat upon the Viscera, and ground to suspect an Instammation.

If a Frenzy turns to a Lethargy, 'tis an ugly fign; but if a Lethargy turns to a Frenzy it pro-

mifes well.

Ardent Fevers are always attended with highcolour d'Urine; and therefore if in such Cases the Urine becomes whiter and thinner, and be accompany d with Watchings, Perturbations of the Eyes, a Stammering Tongue, &c. you may

fafely prognofficare a fpeedy Delirium.

A thick gross and muddy Urine in acute Diseases, is followed for the most part by Disorders of the Head; so that when such Signs appear, if the Patient inclines to Sleep, and has a low Pulse, with such like Signs of Coagulation, you may infallibly assure the By-standers, that a Lethargy is not far off. But if this sort of Urine

is attended with Watchings; Head-aches, a dryness of the Tongue, and a burning heat upon the Viscera, a Delirium will speedily visit you, as I have frequently observed in the Hospitals up and down Italy.

According to Valschmidius, the gentler fort of Acids, and the Cinnabarine Powders with Emulsions, are the chief internal Remedies in a

Frenzy.

Many Mad People have been cur'd by being duck'd in Water, after the same Method with those bit by a Mad Dog, whose only Cure confifts in a repeated immersion in Water. This Method of Curing Mad People, has been try'd in England with great Success, by Mr. Robertson; as Mercurius, the Son of Helmont, informs us in his Treatise De Homine, § 29.

Of an Asthma. of Principalities which is

The section of Forms and

Unless you rightly distinguish between a Convulfive and a Humoral Afthma, you'll never make a happy Cure.

If your Patient is troubl'd with a difficulty of Breathing, open a Vein in the Arm, notwithstanding the presence of a Dropsie. Hipp.

Epidem.

If in the Night-time, especially after three or four hours Sleep, the Patient awakes of a fudden, with a violent Althma and Suffocation Fits upon him, and presently runs to the Windows in quest of the free Air; you may rest assur'd that he has a Dropsy in his Breast especially if his Hands or Feet begin to swell; and the Face loses its wonted Colour; and and bove

bove all, if he observes a heavy Numness, or a beginning Palsy in his Arm. We meet just with fuch a Numness in the Arm, in the other Diseases of the Lungs, particularly a Peripneumonia. If a Pleurisy or Peripneumonia invades Asthmatick

Persons, they generally die of it.

A Dysury or difficulty of Urine coming upon an Ashmatick Person is a good Sign, and upon the sudden cessation of the Dysuria the Ashma returns. In confirmation of this, I have made the Observation several times, that in the Diseases of the Breast we ought always to push toward the Urinary Passages, Nature having shewn us the way; and that there is a great Sympathy between the Legs and the Breast, as well as the Privities and the Breast; the Diseases of which Parts undergo a mutual Commutation.

The Diureticks prepared from lixivious and acid Salts, are not so very safe in the Diseases of the Breast; for they raise the Cough and exasperate the Illness. But, on the other hand, the Powder of Hoglice, the Preparations of Turpentine, the Balsom of Peru, the Decoctions of the opening Roots, Fernelius's Syrup of Marsh-mallows, Oc. promote Urine very powerfully; and, at the same time, are not offensive to the tender

little Membranes of the Lungs.

Imposthumes happening in the Legs of Astmatick Persons, may chance to take off an Asthma. Rhass.

Ashmatick Fits return more frequently in a cold and moist Air, especially after hard Drinking.

An Ashma may either proceed from one's Parents, or from an intemperate way of Living.

An Asthma sticks by old Persons till they die; and sometimes the same is the Case of other Folks.

Fat and idle Persons are most liable to an Asthma.

Sometimes an Afthma turns to an Inflammation of the Lungs; and upon that fcore you ought to be cautious of too volatile Remedies; for these may readily produce an Inflammation in the thin and tender Membranes of the Lungs, continually fill'd with a great stream of Blood.

A violent Ashma sometimes reduces the Patient to the last extremity; in which case, Death is prevented by a speedy Veneschion; and that repeated, if Necessity requires, or performed in both Arms at once. Sperma Ceti from a Scruple to a Dram dissolv'd in very hot Broth, is likewise very serviceable in procuring a freer Respiration; but in a particular manner tis of wonderful use in that fort of Ashma which is call'd Pituitous and Humoral.

If an Afthma of Repletion, or that of a Catarrh that's speedily dissolved, is attended with a moist Cough, and if this Cough ceases and the Excretion lessens, while the difficulty of Breathing remains, Death is at hand. Valefcus de Faranta, &c.

Of a Diarrhaa and a Dysentery.

L

Loofnesses arise frequently from Grief and the Passions of the Mind; and are in a manuer incurable, if the Cause of the Grief remains. This fort of Loofnesses uses to be followed by an erratick Fever, till the Patient wastes and pines away to Death.

Sweating coming upon a Loofness stops it.

Loofnesses are pernicious in the Discases of the Breast; they are likewise very offensive to Worldmen in Children and Children seiz'd with Manignant Fevers.

You must not begin the Cure of a Loosness with Astringent Med sines, for by that means you will occasion stubborn Obstructions of the Viseera and Intestines, which at last tre succeeded by an obstinate Dropsy.

The eating of Meat inflames a Loofness, fothat

you must avoid it as much as you can

Nothing renders the Belly more costive than the Use of Venery; witness, Hipp. 7. Epidem. Acting lib.; cap. 8. Paulus, libet, cap. 13. who all affert that the exercise of Venery dries the Belly. The same is observed by Amarus Lusitamus, Cen. 15. Observed.

Those who are much taken up in Study or Domestick Cares, are costive. Costiveness is one of the Endemial Distempers of the Roman Climate.

Some People have been cur'd of Loofnelles, and fainting Disorders of the Stomach, accompanied with a Dysentery, by chewing Cinnamon all day long, and swallowing the Spittle of that Mastication.

Sometimes a Purgative Med'cine raises a dangerous Superpurgation, which frequently occasions sudden Swoonings; and in this case a Scruple or half a Dram of Venice Treacle speedily puts a Stop to the Evacuation; which I have sometimes wonder'd to see in the Hospital upon the Prescription of an old Physician.

The Smoak of Turpentine thrown upon burning Coals, and received by the Fundament, cures an inveterate Loofness, a Dysentery, a Tenel-

mus, a Relaxation of the Anus, Oc.

If Persons is of a Loosness void a Saffron-colour'd Bile, not unlike the Rust of Iron dislow'd, or red Bricks, it speaks a Pestilential Humour, which will carry off the Patient, pursuant to the constant Observations I have made upon such Instances. Chesnau 1 3. c. 6.

If a Loofness insues upon Anger, 'tis a good Sign, but if the Loofness does not appear you

may expect a Fever.

have frequently observed, and indeed I've heard it confirmed by others, that in some Distempers, especially those of a Chronical Form, such as the Phthisick, Co. and even in other Distempers, the sick Persons are taken, a little Time before their Death, with a Motion to go Stool, and many of em die in the very Time of the Evacuation. This deserves to be maturely weighed.

A bilious Vomiting is unlucky in the beginning of a Dysentery. Hipp. Coac. Pran. Sell. 32

Num. 62.

Most of those who die of Dysenteries are kill'd by a Sphacelus of the Intestines, which appears at least three Days before their Death; for then the extreme Parts begin to grow cold, their Pulse is low and unequal, their Sense of Thirst and their Pain is not so violent, and some of em turn delirious some Hours before they die.

If a Dysentery without a Fever does not yield to other Remedies, we must have Recourse to the Tettuccian Waters, which if given according to Art, will infallibly compass the Cure. Of this I have seen two or three Instances to my

great Admiration.

If the Use of astringent Med'cines is sollowed by an Inslammation of the Belly, and a greater Difficulty in Stooling, Rhubarb ought to be frequently quently us'd, interlacing now and then fome Anodyn Mixture made of the Syrup of Corn Popies, Water of Violets, Requies Nicolai, Oc.

By these means you'll make a Cure.

In the Cure of a Dyfentery be cautious of ufing too great a Medly of Remedies; your Med'cines ought to be few and fimple. I have often cur'd Dysenteries with nothing else but Whey, given inwardly, and injected by way of Glyster: Nav. feveral Authors take this for a great Antidysenterick Arcanum. Sometimes the Disease is inflamed by an over copious Injection of Glyffers. by reason that they occasion a greater Tumule in the ulcerated Fibres of the Intestines. They, ought therefore to be given but feldom, and that in a small Quantity!

If a Dysenterick Person be taken with a Vo-

miting, 'tis a dangerous Cafe.

The Hickup is a mortal Symptom, and so is the Jaundice. A Difficulty of fwallowing is the Forerunner of Death,

In a mortal Dysentery the Stomach is affected as well as the Intestines, and that is the Source Check Later

of fo many Evils.

The Pills call'd De Caccionde the Basis of which is Cashue, are an admirable Anti-Dysenterick, only they must not be given in the beginning.

If a Dysenterick Person is seiz'd with an Inflammation of the Tongue, and a Difficulty of

Swallowing, there's no Hopes left.

If the Pain is not immediately followed by Excretion, you may conclude from thence, that the

fmall Intellines are affected.

A Dysentery differs from the running Piles in this, that the Hemorrhoidal Blood comes before the Excrements, whereas the Dysenterick Blood either accompanies or comes after the Excrements.

If the Gut call'd Jejunum be affected, it prognofficares Death by reason of the Vicinity of the Liver.

If a Dysenterick Person takes Opiats, and the Day after appears with another Colour in his Eyes, he'll fcarce get over it : but if the Colour of his Eyes continues unaltered, itis a Sign he may recover. Valfehmid. do various de la seconda

You must not exhibit Astringents in the beginning; and Crato's Rule, is, not before the fe-

venth Day.

Among the Anti-Dysenterick Med'cines we cannot but recommend tofted Rhubarb, Flowers

of red Rofes, and Nutmegs

The Root of Hypecacuanha is a Specifick, and a Remedy almost infallible in the Dysenterick Fluxes, and other Hemorrhagies, Colliquations of the Humours, Oc. Of this I was inform'd by the Learned Doctor Sherard, a noted Botanist and an excellent Physician in England, when he travel'd from Rome to Germany with my Lord Townsend. And not long ago I had the fame thing confirm dby Letters from the Excellent 70. Jac. Mangenus, a celebrated Practitioner in Switzer-Land. But a full Description of this Root, may be met with in Piso's Treatise de Plantis America.

Of an Apoplexy. Comprehensive Comprehensive Comprehensive Communication of the Communica and a Difficulty of

There's a Necessity of distinguishing an Apoplexy, into the Sanguine and the Pituitous kinds. In the former Bleeding is of admirable Ufe, for by that means I have feen the Apoplectick Persons recover immediately. In the Pituitous Apoplexies, an emetick or a violent Purge prescrib'd out of hand

hand is the only Remedy; upon which Head I prefer the Powder of Cornachini and the Infusion of Crocus Metallorum in Wine. Some Appolectick Persons of the pituitous Class, have been entirely cur'd by taking a Vomit of this Infusion every Month.

In an Apoplexy the Illness runs higher or lower, in proportion to the greater or lesser Difficulty of Respiration. If a Person once seiz'd with an Apoplexy is afterwards seiz'd with a Vertigo, he may expect to have his Fits again.

If after Bleeding the Respiration becomes freed and the Pulse in good Order, it prognosticates

a Recovery

If a Glyster is thrown out an Hour after 'tis given, it is a good Sign, but if it does not come away there's Danger in the Case; for it speaks, that the Intercourse of the Spirits from the Brain to the

intestinal Fibres is almost interrupted.

Glysters for Apoplectick Persons are to be given in a very small Quantity, to the end they may be retained and lodged longer in the Intestines; for if the Quantity be too large, they run out again: Indeed, if they are not retained when injected in a small Quantity, 'tis an uggly Sign, for it speaks the total Resolution of the Parts, and consequently the Approach of Death.

A Fever feldom follows an Apoplexy, especi-

ally if it be of the Pituitous Sort,

If a Catochus happens in the very Paroxysm of an intermitting or remitting Fever, no Remedies ought to be prescribed during the Fit; for here's nothing you can give, but what will injure the Patient, unless you make use of Fictions and Revulsions which I own to be allowable. Sometimes the Catochus disappears along with the Fit; but if it does not, you must let Blood immediately.

stely, or purge according as the Indications are; but if it comes a second time it brings Death along with it; Witness, the learned Dodonaus in

his Observ.

Valefius has observed of Lethargick People, that the Pulse which was formerly low and little, becomes large upon the Accession of the Lethargy; and the larger the Pulse grows the sooner the Patient dies. In like manner Rhodius on Septalius, tells us out of Ballonius, that in all sleepy Disorders, especially a Lethargy and Apoplexy, Death approaches, when the Pulse turns from little to great, and increases sensibly in Magnitude. And I observed the same thing at Rome, 1695, in the Case of an Old Woman, who after the had been Apoplectick for four Days, had large and brandishing Pulse about ten a Clock at Night, and died about four the next Morning. This Observation I seriously recommend to those who practice Physick.

In 1694 in the Winter time, I observed in the Hospital at Rome, that when the Apoplexies were severe and already confirm d, Blistering Plasters did no Service; nay, all the Patients in that Con-

dition died.

Foaming at Mouth prognosticates Death in an Apoplexy, Hip. 2. Aph. 43. Tulp. 1. Obs. med. 6. and Forestus 10. Obs. 74. in Schol. says, an Apoplexy is always a mortal Illness, but 'tis more such, if there appears Froth about the Mouth: And Rhases speaking of a violent Fever, says, 'Tis in vain to offer any Cure after they begin to foam at the Mouth.

Apoplectick Persons seldom get clear without the Resolution of some Part; and if all their Members are seiz'd in that Paralytick way they're soon carried off; nay, some fall into their Apoplexy again.

Thofe

Those who are subject to an Apoplexy or a General Palsie, or are already seiz'd with either, are mightily troubled with Wind, Inflations in the Belly, and a rumbling Noise in the Intestines. Now, these Symptoms proceed from the Interruption of the Influx of the Spirits thro' the Nerves to the Intestines and adjacent Parts: For the fleshy Fibres of these Parts being thereby render'd Paralytick, and their tonick Motion almost funk, the Vapours and Steams that exhale from the Contents of the Intestines assisted by the intermix'd Particles of the Air, heave up the abovementioned Parts into a flatulent Bulk, much after the same manner with a Dog's Ventricle, which swells presently upon the Ligature of the fix pair of Nerves. The Reason of this Phanomenon is accounted for at large in our Treatife De fibra motrice & morbosa. -

Of Pain in general, of Convulsions and Convulsive Motions.

Such Pains as do not yield to Med'cines, Bleeding, or other means, turn to a Suppuration. Hipp.

If a Shivering comes after a fix'd Pain with a Swelling and great Heat in the Hypochondria, Breast, Spinal Marrow, or elsewhere, 'tis a Sign of an Inflammation, and that the Humour tends to Suppuration. Jacob. Comment. ad lib. 4. Coac. Hip.

If the Pain is fix'd in one Place, and does not disappear upon the use of proper Remedies, let the Part be where it will, burn it with crude Flax.

Hip. de affect. 5. Speaking of the Sciatica.

Such Pains as grow eafy without manifest Signs

are mortal. Hip. in Coac.

The jovial Bezoardick is an admirable Remedy for allaying the raging Pains of the Parts, and throwing throwing out the peccant Matter by infentible Transpiration; but in the mean time you must take care, that these Pains are not gouty, venereal, or the like, the matter of which being retained might do more Mischies; you must likewise take care not to use this Medicine in the Diseases of the Head and Nerves, for Tin is naturally an Enemy to the Nerves. However I have been oftentimes surprized to find, that this Bezoardick is an infallible Cure in Hysterick Cases.

If Pains in any Part of the Body are periodically exasperated, and return at a set Hour, the pectant Matter is not bred in the Place affected, but is derived from some other Part: In such Cases a gentle purging Potion, exhibited three Hours before the time of the Invasion, is an effectual Remedy, especially if the Scene be laid in the Abdomen.

In Pains of the external Parts, when all other things prove ineffectual, you must have recourse to a Caustick. In this Case I use to apply the Leaves of Crow-Foot, or a Mixture of quick Lime and liquid Soap. This Med cine is extream serviceable in the Sciatica, and other Pains: Witness, Hip. Lib. De Intern. affect. §. 19, and Lib. De affect. §. 30. If the Pain is gathered up in one Spot, burn it; nay, let the Pain be where it will, unless it be in the Spleen, you will still find Benefit by burning.

Tis manifest from repeated Experience, that the Pains of the Head arising from the Disorder of the Stomach, do chiefly affect the Forehead; and on the other hand, that Head Aches springing from the Disorders of the Woomb, fall chiefly upon the Crown and hinder Part of the Head. Accordingly we find, Women who are subject to Hysterick Fits, use to have a Sense of Cold in the Crown of their Heads; and this I take to

be the chief Diagnostick of an Hysterick Case. If a Place be affected with Pain, and the Flesh of the Part be at the same time Flaggy or wasted, burning is extreme seasonable. Hipp. de Arric. 5.34.

I have remark'd three or four times that the most obstinate Head-aches, which were even next door to Madness, have been happily cur'd, when all other things prov'd ineffectual, by nothing else but the Powder de Guttera, given to a Dram, with Thea, or with Broth impregnated with Cowslip Flowers, Betony, &c. Of this Powder see Riverius Cap. de Epileps.

There's nothing better against Head-aches or a heavy Dulness in the Head, than bathing ones Feet in warm Water, when they go to Bed.

I saw very lately a Man of fourty Years of Age, cur'd of a very dangerous Head-ache, after trying all Remedies in vain, by the Juice of Beet Roots, strongly snuffed up the Nostrils several times a Day.

The Spirit of Salarmoniack mixt with the stale Oil of sweet Almonds gives speedy and effectual Relief in external Pains, and Experience has taught me, that spirituous Ingredients blended with those of an uncruous Character are admirable Remedies against Pains, and infinitely preferable to the Spirituous taken a Part.

When the Small Pox are just ready to break out, their Approach is fignified by convulsive Motions; nay, if you find a Child seiz'd with a Fever that has not had the Small Pox before, and observe convulsive Motions upon him, with a burning Heat about his Loins, you may safely prophecy, as I have done several Times, that the Small Pox will appear the next Day.

According to the History of Diseases, some Children have the Measles twice or thrice; and indeed I once met with an Instance of that Nav ture at Padua.

Those who are troubled with the Cramp, void for the most Part great Plenty of thin and clear

Urine.

The Powder de Gutteta is a Specifick in Convullive Disorders, as well as in the Megrim,

Head-aches, Heaviness of the Head, Oc.

The Balfam of Paracelfus is a most potent Remedy for all Convulsions happening after Wounds, Punctures of the Nerves, &c. and indeed no Surgeon ought to be without it. See the Description of it in Paracelfus his little Surgery.

Generally speaking, the Convulsions of Infants fpring from the Stomach, and thence it comes to pass that gentle Purgatives, particularly the In-

fusion of Rhubarb, give immediate Relief.

In convullive Distempers, thick and muddy Urine looks well; but thin and white Urine fpeaks no good.

There are three Med'cines, that have a just Title to Preference before any other in Epileptick and Convulsive Diseases; namely, native Cinnabar, Oak-fern, and Elk's-hoof.

Your Children that have a scabby Crust upon their Head, are seldom troubled with the Epi-

leptick Fits.

Women taken with Convulsions after Miscarriage, find it a hard Matter to get thorough, pursuant to my own Observation. Convulsions following a Frenzy are Mortal, according to Aetius.

In the Diforders of the Nerves and the Head, the Powder of Cornachini takes Place of all other Purgatives

In Convulsive and Nervous Diseases Violets

are a Specifick.

The Spirit of Sal-armoniack, curdles the Milk in the Stomach of Children; and for this Reafon, you must keep off from that Med'cine, when you have to do with Epileptick Children.

You'll find it worth your while, when a Child is taken with Convullive Fits, to mind whether the Mother has her Terms upon her or not.

Road, will occation a furprising holsrot Midmor and Render, as vidged la life the thurs, and other Members, Ente de U.S. Parkf. Not.

miceges a fatal End. Aph ; 7. Sell. 6.

Coughs of long standing disappear upon the Swelling of the Testicles, and a Tumor in the Testicles goes off with a Cough: Hipp. 2. Epidem. Sell. 1. This Remark furnishes us with a growing Confirmation of the tacit Confent, I have fo often mentioned, between the Privities and the Breast, as well as between the Legs and the Breast.

In Children a Cough fprings a most always from a Stomach stuff'd with Crudities; In which cafe we ought always to have a regard to the Stomach; but fo as not to negled the Pectoral Remedies.

A violent Cough uses to produce a Rupture in Children, Miscarriage in Women, and a Confumption in Men; for which Reason it ought never to be flighted.

Milk is an admirable Remedy in a dry Cough, arising from the Acrimony and Thinness of the Humours. In this case I use to prescribe Milk boil'd with the Broth of Meat or Violet Water.

If an obstinate Cough, attended with a Fever, is proof against all Remedies, it tends to a Confumption, even when there's no Spitting of Blood in the Case. When the Cough retains to other Distempers, you cannot compass the Cure, without curing the Difeases 'tis tack'd to.

If

If a Cough happens in a Fever, the Fever will not be perfectly our d. while the Cough lafts.

Dry Coughs and a Roughness in the Throat, are occasion d by a Northerly Wind. Hipp. Aph.

Louis and it waste your white, when Baily

I have fometimes observed that a violent Cough seated in the Lungs, and communicated to the Head, will occasion a surprizing Loss of Memory and Reason, as well as a Palsy in the Hands, and other Members. Boyle de Util. Philos. Nat.

If dropfical Persons are seiz'd with a Cough, it

portends a fatal End. Aph. 35. Sell. 6.

The found by Experience, that in a dry Cough when all other Remedies are fruitless, there's a great deal of Benefit reap'd from Crab's Eyes exhibited to half a Dram in the Decoction of Pursuan, Colrespoot, and Violer Leaves.

In a pedoral Cough, your common Remedies prepared from the pedoral Herbs are much more ferviceable, than the long-winded Compositions of the Shops. Repeated Experience justifies this

Truth.

Physicians get no Credit by administring Purgarives in a Cough, especially that of the pectoral Form, nay, if the Cough is occasion d by unseafonable Weather, they do more harm than good.

Pectoral Coughs are wont to be exasperated by Purgatives, witness Exmullerss; but a Purge may be granted in such Coughs as have their Source in the Stomach, and are accompanied with a notable Cacochymical Disposition in the Blood.

Bolus's made of fresh Butter with Sugar, and exhibited at Night, pacify the most violent Ca-

tarrhous Coughs.

Lobelius's Syrup of Hedge-Mustard is likewise very serviceable in a Cough and a Hoarsness.

We learn from Dr. Willis's Authority confirm d by repeated Experience, that the best Remedy against the Convultive Cough of Children, is a Decoction made of the Fern of Trees, especially that of the Oak, which is likewife beneficial in other Convultive Diforders.

The Spirit of Harts-horn is of admirable Use

in the most violent Coughs.

Of the Stone and the Gout.

Color, and insection out of a ich l'acte nous.

The Stone and the Gout murder the Rich more than the Poor; and the Wife more than the Fooliff new of the court he more brown trackers

The primitive Parents of the Stone and the Gout, are, Wine, Venery, Sloth and Intemperance.

Their Antidotes are, the drinking of Water. the use of Milk, Sobriety and Exercise. Accordingly we fee that Zechim made a mighty Secret in his Consultations, of a Pint of warm Water taken down immediately before Dinner: Nay Pifo and Alexander recommended the fame Remedy many Years before Zechius, affirming that after the voiding of the first Stone, they never faw any more bred in those who continued the Use of warm Water, for a confiderable Space of Time.

Tis almost in vain to prescribe any Remedy to the Gouty, unless they be very temperate in the tife of Wine and Venery, and avoid both Idle-

ness and hard Drinking.

You may diftinguish Rheumatick Pains in the Loms, from those of the Nephritick Form, by the following Sign which never fails. When the Patient raifes and extends his Body after bowing it to the Ground, if the erecting is perform'd with

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Difficulty and Uneafiness, and a Sense of being. as it were, cut thro' the middle, you may rest satisfied that 'tis no Nephritick Pain, but a Rheumatick Illness occasion d by sharp and briny Salts conveyed to the Part in a ferous Humour.

In these Rheumatick Pains of the Loins, I have met with great Success in administring every Morning about a Pint of Milk Thea: And perhaps the same Remedy would not be amiss

in the Case of the Gout or the Stone,

If the abovemention d Signs attend Nephritick Cases, and be accompany'd with Pains upon the external Muscles of the Back Bone, we then look for external Imposthumes; but if the Pain rages more inwardly, it prognosticates in like manner inward Imposthumes. Hipp. Sec. 7. Aphor. 36.

Eating Musk Melons, and drinking the Water distill'd from their Pulp, either cures, or considerably benefits, in the Gout or the Stone, provided the Measures of Discretion be observed in

the use of Wine, Venery, and Exercise.

Prepar'd Hog-Lice give present Relief, in a Supression of Urine, and are of use to break the Stone.

If other Remedies are ineffectual in a fatal Suppression of Urine, let the Patient be well cover'd and supported by two or three by-Standers, in order to fetch several Turns up and down the Room; For Sydenham is evidence that by this means large Quantities of Urine have been procur'd.

The Pains of the Kidneys, proceed chiefly from five Causes; namely, a Flux or down falling of a sharp and corrosive serous Humour, an Ulcer, an Inflammation, an Imposthume, and the Stone.

In Nephritick Cases, if the Patient is seiz'd all on a fudden with a Sense of something pricking, and as twere stinging him in the Region of the Ureters,

Ureters, 'tis a certain Sign of the Stone just falling on that Part.

After Bathing, and particularly the disappearing of the Pain, if it returns with the same Violence and Vomiting the next Day, fooner or later, you may restassur'd that the Pain is Nephritick. Chefnau:

The Drinking of Mineral Waters expells and prevents the Stone; and if thefe cannot be conveniently come at, you may supply their room with a Decoction made from a large Quantity of Eringo Roots, after it is a little bruis'd. If you dilute White-Wine with this Decoction and drink plentifully of it, you'll find it a very powerful Remedy against the Gout and the Stone. Witness Chesnau.

A Stone in the Bladder uses to appear like the Pain of the inward Piles, but the Pain of the former is much more violent than the latter.

Sometimes we meet with a Stone in the Bladder without any Suppression of Urine; and for that Reason a Suppression of Urine, cannot be given in for an infallible Sign of a Stone in the Bladder.

That fort of Urine, that has a great deal of Humour or Matter at bottom, is apt to breed the Stone. Avicenna.

If the Patient handles his Yard frequently, if he has a Motion to Stool when he begins to pifs, if he walks in the Streets open and as it were bandy legg'd; from these three Signs, you may certainly conclude upon a Stone in the Bladder.

Among other Remedies calculated for the Stone and Gout, Thea and Coffee merit the first Rank. In a wandring fcorbutick Gout all the Preparations made from the Pine Tree are of use, particularly, Pine Water, the Essence of Pine, the Extract of Pine, and the like, Witness Valschmid.

In the very Paroxysms of Nephritick Pains, Lithontriptick and Aperient Med cines do more harm than good; but on the other hand, we reap Benefit, from the Emollient, Laxative, and Anodyne Remedies, which unbend and mitigate the painful Contraction of the Kidneys and adjacent Parts, for by that means the Stone gets into the Ureters with great Facility.

I mer larely with an Instance of an Arthritick Person at Rome, who got rid of his Illness upon voiding a large Quantity of thick gross Urine, that turn'd soon after to the Consistence of a Jelly.

Those who vomit frequently, and have the Benefit of an open Belly, are not so liable to the Stone; and accordingly we find the use of Glysters and gentle Purgatives, is very beneficial both in the Stone and the Gout. This I have frequently observed, particularly at Rome in the Year 1693, in the case of a gouty Person that was seventy Years old. He was raised up by two Servants, and carried in the Morning to a Place of Conveniency for going to Stool; but the Evacuation was no sooner over, then he walk'd back without Help, affirming that his Joints were rendred freer and nimbler by going to Stool.

In most cases we find that the Gout lays its first Scene in the great Toe. Tis impossible for those, who ply Venery and Wine intemperately to escape one of the two; I mean the Gout or

the Stone.

If Gouty Persons are in such a Condition as admits of no other Exercise, it would be proper to exercise their Voice, either in reading aloud, or talking, or singing: For Plutarch in his Book de tuenda valetudine reckons up constant talking and singing, among the several Kinds of Exercises;

upon

upon which Head you may confult our Treatife of the Tarantula. Chaping, ni ; so il paccol s

The chief Sign of a Stone in the Kidneys, isa fixed Pain in that Region, accompanied with a continual Vomiting; all the other Signs are uncertain, and common to the other Pains of the Abdomen of their Meting in State in

The most certain Sign of a Stone in the Bladder, is its being touch'd by a Catheter; for there's no other Signs, but what may impose upon the best Physician that is.

For an Areanum against the Stone remember

Mr. Boyle's distill'd Water of Arlmant.

Sometimes there is a Stone in the Kidneys without any Pain in that Part. I have feen two Instances of this Nature, one at Boulogne, the other at Padua: in the diffecting of whole Corps I found large Stones in the Kidneys, norwithflanding they had never been troubled with Pains in that Quarter. Hollevius in his Practice cap. de Hydrop, makes the fame Remark: In diffecting a humane Body, fays he, I found the left Kidney. wasted and full of Matter, and the right one fill a with a Stone, the the Person had never complain dof Pain in those Parts. 192 vd 230 192

Thus far I have endeavoured to chalk down the History of Diseases in a concise Style, by the way of fcatter'd Sentences, recommended and approved by aged Experience: This I've done to point out the Way by which the Practice of Phyfick may reach the due Pirch of Perfection. For the Purpole: This loofe and aphoriftical Way of deferibing Diseases is of infinite Service to Practitioners. In the first place, it presents them with a faithful and clear phyfical Knowledge, and fuch as fprings from the Bosom of Nature, which may be looked upon as the first Gloss, or a perperual

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Paraphrase in directing the Cure of Diseases. In a second Place; in pursuing this Method, we keep clear of the Errors of those, who, following their Scientifick Method in the Definitions of Diseases, &c. do either leave out or wrest a great many of Natute's Precepts that fall not pattly within the Verge of their Method. By this means they perplex the true Sense of Nature, and dropping the Kernel and Marrow of Sciences, amuse themselves with the sorry Remains of dry and empty Compendiums. The third Observation that offers itself upon this Head, is, That these Aphorisms or snug Sentences, being not the wither'd and spurious Trunks, but the genuine and juicy Roots of the History of Diseases, they likewife disclose the true Indications to be minded in the Cure, which a Methodical Disquisition can scarce do; for there one Part gives Light and Colour to another in a circular Way, and the gratifying of the Understanding is more in View than doing Justice to the Nature of the thing. A fourth Advantage accruing from our fententious Way, is, the paring off a great Part of that Labour and Study, we are wont to employ in polishing and imbellishing Sciences by the severe Laws of Method: I mean, in making the artful Deduction and Connection of Parts, in fetting forth the Hypotheses upon which the Matter is reard, in amasfing great Store of Imbellishments, and such other recommendatory Trappings, as ferve more for Ornament than for Use. Such are the severe Bonds of the Schools, which fanceze out the Truth, and wind up meagre and wither'd Trifles. Now, by describing Diseases in scatter'd and straggling Sentences, we avoid both these and many other Inconveniencies. This fort of Sentences may be compar'd to a Looking-Glass of Metal.

Metal, which does not reach the due Representation of Images 'till 'tis polisht to the last Degree; for in like manner our Aphorisms, having undergone the File of repeated Experience, afford a just Representation of the Method of Cure, pursuant to the genuine Image of Nature. Among those who stand up in Justification of this Truth, we meet with the divine Hippocrates, a Man that blended his Learning with Prudence and Discretion, that built much upon Experience and Observation, and courted neither the jargon of Words nor the pageantry of Method, but fingled out and difintangled the true Nerves of the Science. My Lord Bacon takes the fame fide of the Cause in his Book of Morals, where we find him speaking to this purpose. "As in the " way of Life, the Actions of Men lie stragling "without Compactness or Order, so scattered "Hints and Instructions are most serviceable: " for the methodick Way of treating Sciences. "brings in the Art in an entire and coherent "Body, upon which Men turn fo fecure, as if" "they had already canvast its highest Mysteries. So far my Lord. But 'tis needless to insift upon a Subject that lies almost beyond the reach of Dispute. I and a second of an analysis only I seing upon a setty that by a ocetain nati-

ear Appelles a singto che Ciorr el the noch là d'Alperiales et Projek. Ordini Turk ye la de an ilimitions linkunde in the School of Cost de general Monument et au hiel as ac this Mis

design to Geles's thinky are invited Presid. But in the Time of This, order that toom thair the Westin Higher blues broke hismon ar chair than

Table VI

to on to us under the Tirle of the Winks of A HAD. Celler Autelleren, Freise and the one Greener wild by din the frederid not sugar.

CHAP. X.

Of the various Ages and Progress of Physick.

SECT, I

TAving thus detected and gone through the chief Hindrances in the way of Practice, we lie under an Obligation of going yet farther. If we bend our Thoughts upon the feveral Ages of the Practice of Physick, I mean its various Progress, Heighth and Declension, we'll meet with little to brag of; abating for those happy Times of the Grecians, in which the Practice of Phylick flourish'd, and was almost at its Meridian. For the the Grecians did but prattle idly in forming Systems of Phylosophy, and pin'd all their Judgment of natural things upon noify Disputes (excepting Democritus and his Followers, who tacitly rip'd up Nature without opening the Schools;) yet in fixing and promoting Phyfick they acted a very wife Part, and truly shewed themselves to be Inventors: So that this is the only Nation upon Earth, that by a certain national Right lays claim to the Glory of the most folid Knowledge of Physick. Of this Truth we have an illustrious Instance in the School of Coos an eternal Monument of which is at this Day known to us under the Title of the Works of Hippocrates. Calius Aurelianus, Aretaus, and the other Grecians who liv'd in the succeeding Ages, down to Galen's Time, are farther Proof. But in the Time of Galen, or at least soon after, the Roman Empire being broke in upon by the fatal Power

Power of the barbarous Nations, not only Phyfick, but even the other glorious Monuments of ancient Arts, were almost bury'd; and their calamous Fall continued unrepaired to the Time of Charlemaigne, nay, even to the Tenth Century. Physick having wandered without a Guide or Light in that wide extended Defart of Time, stumbled at last upon the Pipes and Reeds of the Arabs, who converted the active and masculine Science of the Grecians, into an Exercise of Wit and Fund of Disputes, acting the part of Children, who are apt to prattle, but unqualified to beget. Twas chiefly upon these Considerations that the celebrated Fuchfius razed their Learning to the Ground, as appears from his Institutions, Lib. 5. cap. ult. and Fernelius treading in his Footsteps, prefac'd to his King with the following Invective against the Arabians, "The " Arabs, says he, passing into Italy, through a "Channel of Barbarity and Filth, bred Apothe-" caries and Mountebanks rather than true Phy-" ficians; and raising all their Conclusions upon " naked and empty Words, without the Sinews, " without the Laws of Demonstration, have left the World a Legacy of Jargon and Noise, but little or no Instruction. They delivered the "Rules of Evacuation in fuch a cloudy and in-" constant Way, and dip'd them so deep in the s obscurity of Controversies, that the ablest Phy-" sicians are often at a loss to know what fort " of Remedy they would be at." So far Fernelius. And what he has faid of the Arabs, may be applied with equal Justice to the other barbarous Schools.

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After the Arabians had continued their unjust Monopoly for feveral Years, Physick thus toss'd and sharrer'd with so long a Storm, sled at last to the Italians, in hopes of a kinder Harbour. The Latins being long unacquainted with Sciences, fnatch'd up the first Books that came to Hand; and those were either written, or adulterated and corrupted by the Arabians. This Arabian Contagion did so unhinge and fink their Minds, that for a long time, they utter'd no Words, and harbourd no Thoughts, that did not relish of their Learning; nay, the Plague made a speedy March even to foreign Universities, and particularly those of Spain: for at that time all the Rays of Sciences forung only from Italy, and Foreigners consulted her as an Oracle. And if we take a narrow View of the Books and Studies of the Physicians that liv'd from the eleventh to the fifteenth Century, we'll find them to be nothing elfe, but undigested Medleys cull'd out of the Arabian and Grecian Authors, Commentaries and Glosses in order to unfold their genuine Sence, and at last a Perplexing of Physick, inflam'd with Theory and such like slender Appendages. The Italians, particularly Mr. Fab. Calvus, Martianus, Septalius, Oc. were the first that shak'd off the Arabian Yoak, and used their utmost Efforts to restore the primitive Wisdom of the Grecians, with reference to Phylick. After them the French imbark'd in the same Design, particularly Duretus, Ballonius, Hollerius, and Jacotius. Thele worthy Authors manag'd their Provinces with fuch distinguishing Excellency, that if they did not go beyond the Grecians, at least it must be own'd

own'd they chalk'd down the true Method of Cure according to their Prescriptions. This Dostrine being communicated to a'most all the Universities in Europe, it excited at the same time other learned Men, to inlarge and confirm it.

III.

Scarce had the Practice of Phylick arriv'd at this State of Tranquillity, when the upstart Paracelsing, back'd by all the Gang of Chymists, raifed a new Tumult, and laid fresh Cloggs upon the true Practice. Nor was this long past, when Helmoneius with his Retainers inlarged its Troubles, in fo much that all the Conclusions of natural Things were chain'd down to a Chymical Furnace. It must be own'd indeed, that these two noble Authors have considerably enrich'd the Practice with a new Invention of Remedies. which all Physicians ought chiefly to have in View; and have done very good Service in firiking out some Prejudices, that had crept into Physick, through the Ignorance of the Arabian and falfe Interpreters. But when both the one and the other take upon them to account for the Causes that give rise to Diseases, and the Phanomena that accompany 'em; being preposses'd (themselves) either by the reading of Books, or the flirting Experiments of the Furnace, they lay all their Stress upon the Philosophical Hypothefis of their own three Principles, without ever descending to Practice, or making their Remarks, whether the Historical Progress of Diseases, and the Efforts of Nature in promoting or oppoling em, are exactly answerable to their Arbitrary Opinions. By this means it came to pals, that they not only diffurb'd the Repose, that Physick then

then enjoyed, but likewife were forc'd, the against their Will, to see in their own Practice the very Errors they had cenfur'd in the Galeniest; for their Defign did not reft in unhinging the falle Method used by the Calenists in the Prescription of Remedies, which indeed wanted to be corrected; but it extended to the exploding of the Remedies themselves, namely, Bleeding, Purges, Blistering, Platters, and the like, as being useless and pernicious to Mankind. Now whether this proceeded from Ignorance, or from Spite to the contrary Sect; itis fill certain, that in this Age it has raifed to much Confusion in Physick, and such Differences and Feuds among Phylicians; that inflead of a regular and correct Practice, we meet with nothing but a hungry Barrenness, starv'd with Want and wasted with Contention, which at once robs us of the Liberty of thinking and judging, and drives us a long Way back from the true Path of instructive Nature.

No fooner was the Chymical Buftle pacified, than Practice was brought into fresh Trouble, by fo many new Systems of Philosophy, that this fertile Age has produced ! I mean the Cartefian, the Democritan, the Mechanical, the Phyfice-Mechanical, and an Infinity of other Systems; the Founders of which and their Retainers, tho unacquainted with the first Elements of Physick, had nevertheless the Self-sufficiency to dip into that Science, and form Conclusions of the History of Diseases from their speculative Institutions. In Imitation of them the Physicians became altogether Philosophers, and being after'd with the

the Tranquility of abstractive Wisdom, rais'd up a contentious and wrangling Sort of Philosophy, in the room of the Practice of Physick, which can't well be fever'd from a Bed of Sickness. And confidering, that for almost fifty Years last past, the World has been fo much amused with Novelty, that very few have applied themselves to folid and attentive Practice; we cannot think it strange, that the numerous Physical Books publish'd within that Space of Time, have nothing in em but pure and abstractive Philosophy, at a time when the Conclusions form'd upon the Motions of Nature are tumbl'd down and thatterd, and the very Principles of Practice are handled down in fuch Perplexity, that the most accomplish'd Physicians are at a Loss to determine, what Politions to entertain, what Author to credit, and what Course to steer in pursuing the Cure of Diseases. Upon the whole, if we maturely weigh the present State of Practice, we'll find it under violent Commotions, and extremely perplex'd with lean and empty Axioms, and some false general Positions, deriv'd either from the divers Sects of Physicians, or the preposterous Laws of Method, or from the favourite Notions and Prejudices peculiar to each Phylician. If we measure its Age from the foregoing Observations, we'll find it still within the very Boundaries of Childhood, and that very little time has been spent in improving it; for fetting afide the happy Times of the Grecians in which Med'cine flourish'd and was almost at a stand, the Arabians trampled it under Foot, and the Latins indeed better'd its Condition, but did not improve it much. And so of the rest.

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CHAP. XI.

Of the Sources of Theory and Practice.

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Physician can never recover his ascendant over Nature, without a dutiful Obedience; for Nature is conquer'd by obeying and humouring her, I mean in the Way of Practice by Obfervation, and that of Theory by Diffection; and in regard the Basis of Theory is lodg'd in Philosophy, that fort of Philosophy must illustrate the Theory of Physick, which dissects Nature, and makes a due Separation of its Parts. Such was the View of Democritus's School, and of a great many experimental Philosophers of this our Age, whose Industry has without Difpute enrich'd the Modern Theory, with a vast Stock of Certainty. It being therefore once known and acknowledg'd, of what Importance Observation is to Practice, and Dissection to Theory; the Mind being constantly equipp'd with Subsidies from each, will form Indications of Cure that may be depended upon for a Certainty, and last unshaken thro' all the Periods of Time, abating from what Allowance is to be made for the Unconstancy and Vicissitude of things.

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Tis an ancient Proverb, That the Drinkers of Water cannot entertain the same Sentiments with those

those who drink Wine. And indeed it hits the Phylicians nicely, they being now divided into fuch various and opposite Seas: For we may fay of 'em what Sir Francis Bacon applies to the Philosophers, that many of 'em, both Ancient and Modern, have fwin'd down a raw Sort of Liquor, fuch as Water, which either forung naturally from their own Conceptions, or was pump'd up, like Water out of a Well, by Logick. So that 'tis no Wonder if their Sentiments are validly different from those of Hippocrates and his Followers, who drank and transmitted to Posterity a Liquor drawn from an infinite Number of the Grapes of Observations, and those gather'd in Bunches in due Seafon, and in time of Manirity, squees'd in a Prefs, purg'd and clarified. In earnest, these sagacious Men were sensible that the Diseases of humane Bodies can't be appealed by the abstractive Opinions and Systems of the Brain, to which the Industry of Men should be nail'd down as to a Pillar. They wifely perceived that the stooping of our Genius to real things. the conquering of Nature by Submiffion and Obedience, and the flubborn Patience of Obfervation, do bring to light fuch Precepts as will be own'd by all the Poffe of the Physical Train to be the fix'd Standard of Health.

III. An allowed by

Hitherto Physick has been too curious and minute upon empty Trisles, it has been sensels and severe in contemplating and commenting upon the Works of a few Men; and dull and short-sighted in tracing the Essects of Nature and of Diseases. No wonder then, that being still cramp'd within its ancient Bounds, its at a

Lofs to fix upon any thing that is certain, with reference to the confummate History of Difeases; as well as the Indications, Remedies, and Precepts peculiar to each Distemper. We can't think it firange, that being in this Condition, it should fill run further into Confusion, and be as twere mird. Tis no Surprifal, that while ris exalted with the Fumes of Speculation, it undergoes the fame Fare with the Statues and Idols of the Heathens, to which Homage and Adoration is paid. tho, at the same time, they neither are mov'd nor receive any benefit. Whereas, on the other hand, the Mechanical Arts that glory in Experiments, grow and improve every Day. Thefe General Observations being thus premisd, we come now to enquire what Improvement the ancient and modern Physicians have added either to Theory or Practice; and how far either of thefe can reach in the due Cure of Difeafes.

IV.

The Theory of the later Authors, is much more certain, than that of the Galenills. For the former is grounded upon Experiments made with Diligence and Repetition, and drawn from the Storehouse of Natural Philosophy: It lays down, and demonstrates the Causes and Symptoms of Diseases, not by uncertain Conjectures, but by Mathematical Truths, that shine as clear as the Sun; and has carry d the Demonstration so far, that what became barbarous in the Hands of the Barbarians, and was call d in question by the learned World, does now shine in a clear Light, the Cloud of Ambiguity being happily dispeted. On the other hand, the Galenical Theory does not only seduce weak Minds from

the true Road of Practice, by an idle Train of Questions; but by a nauleous Repetition of Things already faid, a Barrent els of Invention. and an Oftentation of Logical Quibbles in refuting and retorting Arguments, covers its Pradice with the greatest Obscurity, and tacks the Care of Dileafes to uncertain and obscure Irdications. Hence it came to pass, that such Indecercies, Abfurdities, and scandalous Feuds, have at all times prevail'd among Galen's Sect. As for the later or modern Phylicians, as I have already done Justice to their Theory, fo I can't but prophelie, that a regular and successful Character will attend their Practice in time to come. There is fcarce any Science, but what in thefe our Days does, by the firgular Bounty of the Almighty, boalt of Repose and Ease, after being fo long tofs'd, and advances very confiderably; only the Practice of Physick, by I know not what fatal Mischance, lies still mew'd up in its ancient Limits, and lags far behind the Theoretick Part.

V.

The Galenical Practice is infinitely preferable to that of the Moderns; for if we consider the Shrewdness and Importance of either their Diagnosticks, Prognosticks, or Cures, the blended with such Dregs of Theory, we'll find 'em worthy of Commendation. This Happiness of our Ancestors in the Way of Practice, seems to be only owing to that immortal Patience in making Observations, by which they firmly resolved to adjust all the Periods of the History of Diferales; and that not faintly, or by Starts, but in a grave, discreet, and mature Order. And

the Light of Nature and Experience being constant and perpetual, the Observations derived from thence, could not but gain a further Confirmation and Approbation, in fo long a Series of Years. This we observe in a distinguishing manner in Hippocrates, who, like an infpire Prophet, forefeeing the Rifque that Physick would run, if destitute of mature and repeated Observations, was the first that trod the Path of continu'd and heap'd Experience; and, in his Enquiries after Nature, confulted rather Nature her felf than his own Thoughts. By this means, he conducted the Physical Tribe to the true Springs of Difeafes. But the Moderns follow'd another Course, having, by virtue of Diflections and Experiments made upon natural Things, attain'd some Certainty in the Way of Theory, they fancy'd that this Theoretick Certainty would redound to the History and curative Conclusions of Diseases; without apprehending that these required a new and peculiar Exercise. Being buoy'd up with this Fancy, they not only bent all their Thoughts and Labour upon the Theory alone; but, which is yet worse, they form'd Conclusions of Practice from the Rules of Theory, and, by confounding the one with the other, perplex'd the whole Art, and gave occasion to the pernicious Errors, that Physick groans under at this Day. Tis the Office of Theory to give the Reasons of the Phanomena that accompany Difeases; to make a just Comparison between the antecedent, and the concomit and Symptoms; to trace the occult Caufes of Difeafes, and the true Source of thefe Caufeet; and, in fine, to explain and account for feeveral other things of that Nature; by which means the Phylician may be enabled to proceed cit more'

more openly in adjusting the Indications, and depart from the precarious Measures of Empiricks. But the peculiar Buliness of Practice, lies in managing the History of Diseases, in judging of the Administration of Remedies, and the Sarisfaction due to Indications, and adjusting all the weighty Concerns relating to the Cure of Diseases, pursuant to the Laws of Experience. He who purfues a contrary Courfe, and promifcuoully forms his Notions of Practice from the Rules of Theory, will never be a happy Practitioner. But give me the Man that diligently perufes the Writings of the ancient Practitioners. that retain'd to the School of Coos, and with his utmost Efforts imitates their fingular Solidity of Practice; I'll warrant you he'll be a Friend to Truth. Let me advise you, young Men, to reject evil Counsel, and manfully pursue this noble Study; the Study of the ancient Practice, from which, as from liberal Fountains, we derive all our Knowledge of practical Wildom; and indeed we meet with no Piece of Learning that's either more uleful, or more praise-worthy.

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As for the other Head of Discourse, whether Theory or Practice is of most use in the cure of Diseases; you must know in the first place, that the ancient Grecians were strangers to the Subdivision of Physick into Speculative and Practical. This satal Division was first minted by Jerain, an Arabian Doctor that was either bewitch d with the Pleasure of Speculation, or scar'd with the Labour and Drudgery of Practice, in compiling the History of Diseases, and tracing their obscurest Causes. And soon after he was blam'd

for it by Alcorazoen, as Averrbes informs us Traff. 1. Part 1. fipe Cauticos. In earneft, 'ris no strange thing that this Division is not mentioned in the Monuments of the Coon School, and of the ancient Grecians down to the Time of Galen; for as I said above, again and again, the Profestors of that School laid down this for a Certainty, That as Physick took its first rife from Outervation, fo twas to be learn'd and apply'd to publick Use by the means of Observation: And what we now perform by the Rules of Theory, was acted by them only by a quickness of Apprehension, confirm'd by long use; by virre of which they adjusted the Indications of Cure, after a narrow furvey of the Observations they had formerly made upon the Nature and History of Difeases, and seriously accommodated to the benefit of Man. In the mean time, up starrs the Empirick Sect, which exploding all Theory, and disclaiming all manner of Reasoning in the verge of Phylick, trufted to Experience alone in the Cure of Difeases; and this their Experience was not repeated, but stupid and fupine; not found out by a Thread of Defign, but dropt from Chance, and Mountebank all over. By this means Physick was over-run with fuch numerous and prodigious Abfurdities, that the had funk intirely. if Galen had not appeard on her behalf about the first Century of Christianity, and frem'd the Current of growing Error with a speedy and present Remedy; I mean by inilitating, or rather prudently and vigorously confirming a Sect of Rational Philicians. This Society, which I call Rational, flood upon two Pillars, namely, Reason and Observation; but at that Juncture of time the greatest Deference was paid to Reafon; partly, because they were

fraid of fumbling upon the Errors they had charg'd upon the Empiricks, that went upon faife Observations; and partly, in regard that the nimble and clean way of Reafoning, aspir'd to by Galen and his Followers, took more with the World, than the harsh Patient, and repeated Way of Opfervation injoin'd by the School of Coos. So, from that time, there arose a fort of Distinction between the Reaf ning and the Offerwing Part of Philick, which came to be more frequently took notice of in the infuing Ages; till at last the Arabiani brought in an open Divorce under the Heads of Speculative and Practical, which continues to this Day. This Speculation or Theory, being all of it rear'd upon some Philofophy or other, the Tenets of which were the Standard of its Rules, it has been divertified in Proportion to the Variety of Philosophical Syftems; and thus has the Practice of Phylick had fo many various Turns and Shapes. Valefius, a very learned Author, interlac'd his Writing here and there with feveral Practical Precepts; and perhaps, would have inferred more, if his vigorous Appearance on the behalf of Logick, had not put him upon determining the History and Cure of Difeases, by the Rules of that wrangling contentious Art. The fame Charge lies against Argenerius, Massarias, Mercatus, and most of the Galenifts that flourish'd in the Three Centuries preceding the last; particulary Capitalins, whose Works are sharply censured by Gasp. Hoffman, upon the abovemention'd Score. But in this Age, in which natural and experimental Philosophy has been happily pursu'd and improv'd, and the Theory of Phylick grounded upon it: who would not think that Practice is thereupon fer in a true Light, and recommended with a due Confirmation.

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Since Physicians began to examine the Stru-Aure and Actions of a living Body, not by Phyfico-Mechanical and Chymical Experiments, but by Geometrico-Mechanical Principles, they have not only discover dan infinite Number of Things that were unknown to former Ages; but have made it out, That a Human Body, as to its natural Actions, is truly nothing elfe but a Complex of Chymico-Mechanical Motions, depending upon fuch Principles as are purely Mathematical. For whoever takes an attentive View of its Fabrick, he'll really meet with Shears in the Inw-bones and Teeth, a Phiol in the Ventricle, Hydraulick Tubes in the Veins, Arteries, and other Venels, a Wedge in the Heart, a Sieve or Straining-holes in the Viscera, a Pair of Bellows in the Lungs, the Power of a Leaver in the Muscles, Pulleys in the Corners of the Eyes, and fo on. And tho' the Chymists explain the Phas nomena of natural Things, by the Terms of Fufion, Sublimation, Precipitation, Oc. and fo make a separate fort of Philosophy; yet all these ought to be imputed to the Force of a Wedge, Balance, Leaver, Spring, and fuch like Mechanical Principles. Now, fince the Natural Effects of an animated Body can't be accounted for with greater Facility and Clearness any other Way. than by those Mathematico-Experimental Principles, by which Nature speaks her own Minds I am likewise of the Opinion, that the preternatural and morbifick Effects can't be demonstrated with more Certainty and Evidence than by that

same Method; and so I conclude, that the Theory which stands upon such Principles, ought to be reckon'd more certain than all the rest. Indeed if all Diseases forum from the Disorder of the folid Parts, the Origin and Caufes of the preternatural Effects we meet with in them, would questionless be easily pointed to by the abovementioned Principles: But confidering that the greatest Part of 'em owes their Origin to the various Complexion of Fluids, we must not be furprized to find, that the true and genuine Cause of Diseases, can never be found by Theoretick Philosophical Principles. For the ablest Philosopher and the greatest Master of the best Hypothelis that is, will be forc'd to acknowledge, after all his Meditations and Labour in tracing the true constituent Parts of any Humours, That the Minima, or least Particles of any Humour of the Body whether natural or fickly, lie beyond the reach of all Art and Speculation: And all the Advances of Physicians upon this Head are nothing but Wild-fire, that do not so much as touch upon the Substance of the Thing. But after all, tho' the true Configuration and Texture of fuch Humours is unknown to us; yet in the way of Practice, 'tis sufficient that we have learn'd by Experience the various Progress, Exit, and Declension of their Motions: for being excited and directed by Nature, they unfold to us the true Springs of Indications, for the exhibiting or shifting of Remedies. Now, these Truths being premis'd, we can't but confels that the Art of curing Human Bodies is acquir'd only by Use and Exercise; and consequentfy, that Practice is of more Importance than the Theory, to the Cure of Difeases, (which was the fecond Head of Discourse.) The subtiler a Mathe-

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Mathematician is he runs the Divinons of Narure finer; and therefore I would not have you to take all your Conceptions of Phylick to be Truths, till they have fixed the Test of Practice. What repeated Experience recommends to you for a Truth, that you may always depend upon as such. You can't judge whether Wine is good or bad, without tafting it: He'll ne'er make perfect Mufician, that does not practice finging; nor an accomplish'd Soldier, that never vifus the Field. Men hatch a great many things in their Closers, that they take to be reasonable, and indeed certain; but when they descend to Use and Practice, they find em to be not only abfurd, but in a manner impossible. And on the other hand, how many things are there (especially if we talk of Cures and Remedies) that upon their first Proposal are branded as useless, and inconfiftent with Reason; and that either because they do not jump exactly with our Hypothelis, or because we know of no probable Reason to inforce them: And after all, when we put em upon the Foot of Practice and Experience, we find em both uleful and certain. Upon the whole, 'tis to be hop'd that Phylick would receive much more confiderable Reinforcements, if in time to come the World would allow to Theory and Practice their respective and peculiar Claims and the best in discharge greater

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A Method proposid to young Beginners, of forming a just Hypothesis of Diseases.

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Uch Things as are grounded upon Nature, improve and come to Perfection; but that which has no other Root but Opinion, varies, and fails of Increase. A notable Instance of the fatter we have every Day in the Phylical Matters, that are built upon an uncertain and purely opiniative Hypothelis. Nay, if we were to make a firid Enquiry after the chief Impediment that has contributed more than any thing elfe. to our not having any certain and standing Sytem of Physical Matters, we'd find it to be this, That Phylicians would not join and duly fute the Force of their Mind to that of Experience. Cesalpinus, a very acute Italian, made the first Discovery of the Circulation of the Blood, and reckon'd the Circulation was perform'd in the Space of 24 Hours, as he tells you at large, Quaft. Peripat. Lib. 5. Quaft. 4. But in regard 'rwas only a Pointedness of Thought that led him to this noble Invention, and that he never confulted fuch Anatomical Observations and Experiments of natural Things, as were proper for improving the Thought; we can't think it strange that he left the Discovery unfinish'd, and, like a Dialectick Combarant that confided too much in the Strength of Wit, fell fhort of the Victory. Harvey taking notice of this, refolved to confult not only Reason, but Experience upon the Head : and with that View he tortur d Nature with Experiments, and teas'd her with Anatomical Diffeaions, till he forc'd her to confess the Truth. Thus did he, beyond the Expectation of Mankind compleat the immortal Invention of the Circulation, by a Sort of Mixture of Reason and Experience. The Discovery thus finish'd, slew. speedily-like a Messenger of Truth across the Seas, and over the Alps, and coming with admirable Celerity to the Knowledge of all the Universities and Colleges of the whole Physical Orb, was entertain'd and approved of, nem ne contradicente. For this Reason, I presume, 'twill not be like the Winds, which the violent in the Quarter from whence they come, are broke and lower'd when they reach the remoter Regions; but will undergo the same Fortune with the great and huge Rivers, which are large indeed at the Head, but receiving perpetual Supplies in their Progress, inlarge their Channel, and swell higher the further they go from the Spring. the Price of the Mary to the all Experiences

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The Knowledge that Practitioners have his there boasted of, has been the Product of Opinion, and nor Nature. To pass over other Instances in Silence, we shall only touch upon a Fever, concerning the Essence of which there has been so many Hypotheses contrived in this Age, that a Man of Sense cannot but be stunned when he thinks on it. James Sylvins, in conjunction with all Bentekee's Followers, was of Opinion, That Heat is not the Cause, but the Essent and Symptom of a Fever, and that a quick Pulse is not a Sign of the swifter, but of the slower Motion

tion of Blood; fo that he placed the Essence of all Fevers in the coagulation or incrafation of the Blood. Going upon these Topicks, he banishes Bleeding and cooling Remedies from the Cure of Fevers; and, on the other hand, recommends spirituous and volatile Ingredients: and fuch as diffolve the pretended coagulation of the Blood; and these he prescribes promiscuoully in all Fevers, and in all the Periods of the Distemper. These Absurdities he runs to it pursuance of an Hypothesis that sprung from his own Brain, and not from the Hiltory of Matter of Fact. Helm nt and Campanella, whose Teners are much the same; afferted that a Fever is not a Disease, but the Remedy of a Disease, call'd up chiefly by Nature, in order to throw out a peccant Matter blended with the Humours. For this Reason their chief Aim in the Cure of all Fevers, was, to feed and increase the febrile Fire, by healing Remedies, and fuch as, to use their own Words, corroberate Nature, and enable her to dislodge the Enemy that hangs upon her Shoulders, with greater Facility and Expedition. Henricus Screta reviving the Opinion of Diec'es, when buried almost in Oblivion, derives all Fevers from the Inflammation of the Viscera: and upon the Confideration that an Inflammation presupposes an Obstruction in the Vessels, or, as he speaks, a Hindrance to the Circulation of the Blood, he condemns Bleeding, Purging, and fuch other Remedies as cool and moderate as overbearing Heat in the Blood; and throws the whole Cure of all Fevers upon dissolving, spirituous, and alcholine volatile Remedies, or fuch of that Form as discuss the pretended Obstruction and Inflammation of the Viscera. The Cartefian Philosophers invented a new Hypothesis of Fevers.

Fevers, in pursuance of their own Principles's Their Sentiments were, that in a natural State the fubril Matter ranges continually thorough the Blood with great Celerity, and passes through its Pores in a thrait Channel , by which means it produces and feeds the natural Fermentations in the Humours: But if it fo falls out that thefe Pores are put into Diforder, and stuffed with a groffer Substance, the fwitt and continued Thorough-fare is thereby oppos'd; upon which this Matter undergoing a violent Agitation, raifes most vehement Motions in the Blood, in order to recover its wonted and clear Passage thorough that Mass. Now, this violent Commotion in the Blood is by them call'd a Fever; for the Cure of which, they recommend fuch Remedies as by their spirituous flender Particles are capable to discuss, dissolve, and throw out by Sweat, or the other Ways of natural Evacuation, that rols, thick Matter, that stuffs the Pores of the Blood, and makes them depart from a streight Line. By this means, fay they, the subtil Matter obtaining a clear Passage, ranges thorough the Substance and Pores of the Humour, not impetuoufly, but genrly, and in compliance with the Laws of Nature.

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I presume no body is unacquainted with the Hypotheses of Sylvius de le Boe, Bontekoe, Braamen, Jones, Piens, and a great many more, that appear'd first on the North-side of the Alps: Nor can any Physician be ignorant of the Opinion of the Galenists, who in explaining the Effence of a Fever, being preposless'd with a false Prejudice, that the Humours of Animals were capable

129

capable of Putrefaction, did not stand to affirm. that the greatest Part of Fevers derive their Origin from the Putretaction of the Humours; and being impos'd upon by the vulgar Opinion, that Humidity is the Mother of Romenness, declaim fo violently against the drinking of Water in Fevers, that they would futter their Patients to run the greatest Risque, rather than to allow them one Drop of Water; and accordingly we have a great many Inftances of Perfons that dy'd of Fevers, in which Water was prohibited, whose Heart and Lungs were found to be dry and wither'd. Thele things premis'd, 'tis obvious, that among fo many Opinions and new Inventions of this Age, the Nature and Cure of Fevers is fo far from being illustrated and afferted, that it is rather perplex'd and cover'd with Confusion. The Fever rages and burns still; av, it burns both in the Schools, and in the Patients Houses and the World would have groan'd under the foreading of that dismal Fire, if one Author, among to many, had not shone out in this Age. I mean Thomas Sydenham, the Imbellisher and Ornament of our Profession, who laying aside the Fictions of Opinion, applied himself wholly to Observation, and dwelt with Nature from his younger Years to a good old Age; by which means he at last disclos da more probable Hypothesis of the Nature of Fevers, and a more plaufible Method of Cure; nay, his Learning and Sagacity was fo much diffinguish'd in the curing of Fevers, that his Countrymen commonly call'd him. The Doctor for Fevers. This I have been several times inform'd of, by the English Gentlemen that travel into these Parts.

IV.

Whoever takes a narrow View of some of the Hypotheses of the Moderns, and the Groundwork they go upon, will perceive plainly, that what these Authors had in view, was to please and gratifie the World with a new fort of Speculation, or elfe, that they were ignorant of the Rules, that are proper to be observed in the contriving of fuch Schemes: For to instance in the Nature of Chylification (which will afford us a fufficient Taste of the rest) this Age has produc'd as many Hypotheses upon that Head, as there are Experiments from the Chymical Furnace, or the Philosophical Laboratory. Both the Chymists and the experimental Philosophers have observ'd, that from the Mixture of two or three Bodies, there forung a third of a whitish Colour, affirm'd that the Chyle is claborated in the Ventricles. and dispos'd to assume the Nature of Blood by an Artifice of the same Nature. And, which is yet more pernicious, they drew from these external, and, perhaps, fortuitous Mixtures of things the Indications of Cure for Crudities, Inappetency, and the other Diforders of Chylification, which ought to have been deriv'd from the aged Observations made upon such Diseases and their Symptoms. But belides the Fallity of the Affertion, that the Concoction, Separation, Dislolution, and other natural Functions perform'd in the Viscera, observe the very same Measures with those of a Chymical Furnace; this unseafonable Jumping from two or three Experiments of any Nature whatloever, to the forming of general Systems, does not only block up the Way that leads streight to the unfolding of any thing,

but drowns the Practice of Physick in fresh Errors every Day. Mandling . Akt and come

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I would not have any one to think, that this harsh Way of treating the Hypotheses of the Schools, speaks me an Enemy to all Hypotheses: For, not to mention that I have always purfu'd that Study, and recommended it to others, provided they be exactly answerable to the Laws of Nature; my chiefest View in this Performance. was to establish a stricter Concord and Union between Observation and Hypotheses than we have yet met with. Tis true in giving my Sense of Hypotheses, I talk in this first Book harshly, and almost indecently: but that I was mov'd to. partly by the Extravagancy of the Phylicians of this Age in hatching such Inventions, and partly by the preposterous Application of such arbitrary Schemes to the Cure of Fevers. The Ant gathers and applies its whole Collection to use: Just so do the Empiricks, who hunt up and down for Experiments, and those neither confirmed by repeated Observation, nor weigh'd in the Balance of clear Reason; and soon after make use of them without Distinction. The Spider spins all its Threads out of its own Body, without gathering Materials from abroad; and the same is the Practice of the speculative Physicians, who may be justly call'd sophistical. But the industrious Bee behaves itself better than the rest, it gathers indigested Honey from the Flowers, and then digefts and ripens it in the little Cells of its Viscera; and, in fine, works upon it with great Toil and Labour, 'till 'tis work'd into the highest Degree of Perfection. Now, in our Protession, we want that fort of Physicians which imitates the Bee: For some of them treat Nature only by way of Abstraction, till they come to the potential and shapeless Matter; others again infifting too much upon Particulars subject to their Senses, but not examin'd by Reason, are sometimes fo perplex'd with the Confusion of things that they contemn fome things as being beneath their Regard; and others they dread, as being too difficult, and beyond their reach.

When I confider the Power and Effects of the Imagination of fuch Authors, as have a wonderful Propensity for the minting of new Hypotheses, I observe they're drove upon the Study of Innovations, chiefly by two Motives; namely, either the Prospect of purchasing that Glory that is wont to be liberally beflow'd upon new Discoverers of Things, and Inventors of Opinions; or elfe, from their Disappointment in plodding a long time upon Books, in order to find out some probable Reason for Things, without meeting with Satisfaction; which puts em upon canvasting the Subject in their own Thoughts. and coining Reasons to themselves. And if it happens that thefe new coined Reafons pleafe any Part of the learned World, they foon after endeavour to enlarge their Stock of Glory, by rearing upon em an intire System of the Universe, or of some whole Art. Now these Men being endowed with a strong Imagination, can't hear of another Man's Opinion, but maintain their own stifly, and take it to be more certain than all the rest. If by Reading or Experience they light upon any thing, that gives but the least CounCountenance to their Hypothesis, they not only adopt it, and twist it in with their own System, but ery it up mightily as being a thing of the greatest Certainty imaginable. But, after all, that violent Passion for establishing their own System for ever, confounds the Ideas of the Mind a thousand Ways, and very often represents to em the Objects of things, not such as they really are, but such as they would have 'em.

VII.

But for the Purpole. If you would have a perpetual and standing Hypothesis, of Necessity it must proceed not from the Author's Noddle, but from the things themselves, and must have an exact Connexion with Observations, and the fix'd Phenomena of Nature. A Specimen of this Truth, we have, among other Philosophers, from the Astronomers. The Hinge of all Astronomy turns chiefly upon this, that from Observations first made upon the Phanomena of Celestial Bodies, the Intellect should afterwards rife to Theory, or to Hypotheses nicely agreeable to the Rules of Geometry; that from a full and mature Survey of these Hypotheses, they may be able to foretel and adjust the Motion, Situation, and Conjunction of these Bodies. Accordingly, the Astronomer's first Care is to purchase a long Series of Observations; after which he aspires to Theory, in order to assign em a probable Reason. Tis true, the Astronomers have form'd feveral Systems of the Heavens, and those contrary to one another; namely, the Prolemaick, Copernican, Tychonick, Semi-Tychonick, &c. But in predicting the Phanomena of the Stars, and computing their Motions; that is, in foretelling Ecliples,

Eclipses, the various Aspects of Planets, Oc they all keep close to the Truth, and do not differ a bit from one another. Now the Mystery of the Matter lies chiefly here, that, tho a particular Astronomer may form in his own Mind a peculiar Theory of the Stars, yet all their Theories are drawn from the fame constant Observations of the Celestial Bodies: for whatever one observ'd, is likewise observ'd by another. 'Tis only the Reason (going by the Name of Theory) why these Bodies appear and move after fuch a manner, that depends upon the Will of Men, and accordingly uses to be as various, as there are various Ways among leveral Men of thinking and explaining themselves: So that tho they disagree as to the Reason and Theory, yet confidering that every one's Reafon is grounded upon the very same Observations of Celestial Bodies, tis no wonder they all agree in the Predi-Gion of Truth at H on V. And more Assess and none awas a fully to an initialist do in Owier-

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fiel thereon are deposit the old affection actions the Practical Physicians ought to follow the Example of the Astronomers, in forming the Hypother ses of Diseases: This they will be able to do, if they be once acquainted with the Language of Nature, and its Ways of Expression; that is, if they have been long employ'd in observing the Events of what is beneficial, and of what is hurtful. After that aged Observation has given them to know, that in such a Disease such a thing always happens, and that after a determin'd manner; then is the Season of raising their Thoughts to form an Hypothesis, and fix it upon the forefaid constant Motions of Nature, in producing or curing this or that Distemper. This Truth is Religios not

not only verified by Experience, but vindicated by Dr. Sydenham, in adjusting the Hypothesis of the histerick Illness. This Author is of Opinion, that the holferick Illness takes its Rife from the broken and languid Condition of the Spirits. upon which they fly out into Effervefcencies and irregular Motions, and produce hysterick Convultions, together with the adjoining Symptoms. The excellent Dr. Sydenham did not cull this Hypothesis from his own Fancy, as Men commonly do; but after a frequent and repeated Observation, that Bleeding, Purging, acid Syrups, and fuch other Remedies as energate the Blood that Grief, Watchings, Falting, Food that gives ill Juice, and fuch like Caufes, did either occasion or exasperate the Distemper; and upon the other hand, that Steel, Venice Treacle, exhibarating and spirituous oily Med'cines, Riding, staying long in the Country, Wine impregnated with bitter Herbs, and the like, did either totally extirpate or mitigate the Diforder: Upon this Observation, I say, he did not stand to asfert and form an Hypothesis, that hysterick Fies proceed from the broken and almost drooping Spring of the Spirits, and the Mass of Blood, its being depauperated, and stript of its nobler and -balfamick Part. He steddily affirm'd, and made it out by Experiment, that the Indications of Cure ought to be fetch'd from this Hypothesis,

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Considering the chief View of an Hypothesis, is to assign the Reason of the Phanomena of Discases, that so the Mind may proceed with more Freedom and Clearness in lingling out the Indications of Cure, 'twill therefore be equally neceffary, that it be grounded upon some general and most evident Principle, that's common to all Things. Now fuch a Principle can be nothing elfe but Figure and Motion: For Figure is still fuch as it really is, whether it be perceived by Sense or not, or whether it be perceived aright or amifs. And as for Motion, fince there is no fuch thing as absolute Rest in corporeal Beings, and that all Bodies enjoy their particular Motion, to which they owe all their Alterations, for better or for worle : Upon this Confideration, I fay, it can't be, but that the Reasonings grounded upon these two primary Qualities of Bodies, are encituded to a greater Certainty, than others that are tack'd to a Principle of a quite different Nature. This appears in the modern Theory, which being founded upon the Laws of Mechanicks. Figure and Motion, affords a happier, and more certain Solution of the Phanemena of Difeafes, than the Theory of the Galenifts that was pino'd to the empty Fictions of first or occult Qualities. And here, in confirmation of the foregoing, as well as of the prefent Thefis, I must take notice by the Bye, that the feveral Hypothefes may be form'd concerning the Breeding and Curing of Diseases, which are infinitely different, and fometimes feign'd, as it were for Divertion; yet while all of em appeal to the fame standing and continued Observations of Diseases. they must all be equally happy as to the Cure which makes a Parallel to what I observed but now of the Astronomers.

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Tis certain that Practice springs from a Mixture, as twere, of Reason and Experience, and

is confirm'd by the same: But in order to manage this Matter happily, and without Error. twill be necessary, above all, to take care that the one does not increach upon the Prerogative of the other; that is, that the Power of adjusting and forming Judgments of Discases, be allowed to Opfervation alone; that Reafon or Hypothefis be allow'd the Province of folving the Phanomena of Diseases, and giving Reasons for the apparent Motions of Nature. For my own there, I stick to an Hypothesis, as long as I find it exactly answerable to the Footsteps of Nature; but if it fwerves never for little from that Standard I presently drop my Theory, and follow Nature. which is always the best Guide. For considering that the specifick Alterations and Depravetions of the Humours, peculiar to every Difeate, lie too too remote to be reach'd by humane Thought; we are forc'd to point our Cure, not to their eliential Nature, but to their more general Cause; varying our Method now and then either upon the spontaneous Advice of Nature. which it uses to give in the Eradication of Difeafes, or upon our own repeated Experience, which gives us certainly to know, what Method is most proper to conquer fuch or fuch a Diftemper. In the mean time, be it known to young Physicians, that there cannot be a more certain Sign of the Truth of Hypothefes, and certain Ways of Reasoning, than that of a happy Seccefs in the Cure of Diseases, when regulated by their Prescriptions: If we find it otherways, we must not lay too much Stress upon 'em. Those who negled this Caution, will fall into pernicious Errors, and give fresh Provocation to the ignorant Mob to upbraid the Phylician with Ignorance,

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Many seed on the Alexa Tis not Opinion, but certain and demonstrative Knowledge, that will do our Bufiness: We must not dispute, but effectually try what Nature acts or will bear; and what we cannot reach by Speculation, we must not presently brand for an Impossibility in Nature, and so reproach Nature with the Infirmity of our Art. We must bend our Thoughts with all Diligence and Constancy, upon the disclosing of new Methods and new Rules for curing the Distempers we call incurable : for the fome of em are in effect incurable, yet the greatest Part are only such, not from the Impossibility of the thing, but from our Weakness. History is evidence, that they have been cur'd feveral times by other Phylicians; and I fee no Reason why the Cure should not last as long as the Distemper. We ought likewife to employ our felves, in finding out new Means and new Measures, for the happier and eafier Cure of the Diseases, that are commonly call'd curable. Let us display our utmost Efforts, that Life may be prolong'd, or that a Method may be found to keep back old Age; that the true Nature of the Blood, and other Humours, or their genuine constituent Parts may be sometime fet in a clear Light; and that, either by Analogy with other Animal or Vegetable Liquors, or by the Help of a Microscope, when they are just taken out of the Body, and spread upon pellucid Glafs; or by fome other Analysis that may be more proper. Let our Care be to comfort and refresh our Patients in the very Agony of Death for tis the most fcandalous thing in the World for a Physician to turn his Back

Back upon a Disease as incurable, and bid adieu to his Patient, two or three Days before he dies. We ought still to try new Remedies, and shift about upon several sorts, to the very last Gasp: for while the Soul hovers within the Body, there is still some hopes to be plac'd in our admirable. Art. In sine, we ought to make it our earnest Business to find out specifick Remedies, and such as will infallibly answer every Distemper, not to mention the Infinity of other things that are still wanting in our noble Profession; to the end that God the Creator of all things, may enrich the Family of Mankind with new Blessings throour Hands.

CHAP. XIII.

The great Importance of establishing Precepts, or certain and constant Rules, to be made use of as a Standard, by a puzzled Physician in the ambiguous Events of Diseases.

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THO' we have shown in the foregoing Chapters, that Theory and Hypotheses are necessary both for tracing the Causes and Essects of Diseases, and for a Directory to Method; nevertheless when we come to the sick Man's Bed, we find they frequently frustrate our Hopes, in pointing to a Method of Cure; nay, sometimes we find our Patient benefited by what either is, or seems, contrary to the very Circulation of the Blood; which, undoubtedly is the surest Hypothess that is. For this Reason I am of the Opinion, that nothing

nothing can be more conducive to our Profession than the daily Investigation of new Heads of Precepts or Sentences, confirm d by long Use and mature Experience, with Reference to the Diagnofticks, Prognosticks, and Cure of Diseases; for they not only feldom impose upon us, and that for the Reafons mention'd above, Cap. 2. 5. 7, 8. o feg. but discover to us at first View, and without the long-winded Turns of Theory, the true and perpetual Indications of what's to be done. Nor is this Opinion of mine the Fiction of a timorous and doubtful Mind, but the very Method of Writing and Teaching, observed by Hippocrates in all his Books, and after him constantly purfued by all the wifest Practitioners. If that great Man had not been fully afford, that this preceptive Method was preferable to all others, and more conducive to the Benefit of the Sick, and the Confirmation of Phyfick; questionicis, he would never have stuck To close to it, both in the Course of his Practice. and the Tenor of his Writings. In Imitation therefore of his Example, I purpose here to lay down some Precepts, which I know to be certain, either from the best Authors, or from repeated Observation in divers Hospitals of Italy. These will ferve as a Pattern for young Beginners, by which they may take their Measures in tracing new Precepts every Day. They are as follows.

In the beginning of acute Diseases, Purgation is pernicious, especially if perform d by violent Catharticks. Tis in vain to object, that many Fevers are stifled in the beginning by exhibiting a Purge; for if we consider the Matter narrowly, such Fevers are only gentle Symotha's, or such as arise from Food of bad Digestion taken in too plentifully, and stagnating in the first Passages.

Such Fevers as are truly acure, do not come so Period to foon; for according to Hippocrates, their Criss, appears much about the 14th Day; and, in regard the Cause of acute Fevers is in the beginning of the Disease confusedly blended with the Mass of Blood, and deeply immers'd in it (which the Ancients call'd the State of Crudity) and confequently unqualified for Depuration; if you exhibit a purging Med'cine in that Juncture, you'll either evacuate what is not to be evacuated, or kill the Patient; or which I have frequently observ'd, exasperate the Fever, and make it double instead of simple, and produce an infinite Number of other Symptoms, that ein ther were not before, or at least were much milder.

Further: In the beginning of acute Fevers, you must avoid not only Purgatives, but likewise volatile Diaphoreticks, and fuch other impetuous Med'cines : for at that time the Blood being over and above inflam'd, and altogether difabled for Depuration, by reason of the Crudity and Confusion of the peccant Matter that puts it into Agitation, tis irritated and fet on fire by fuch Remedies; upon which it repairs with a precipitant Course to the Head, or the other Viscera, and there produces faral Stagnations, or many other Symptoms that did not appear before; fuch as Deliriums, Watchings, fyniptomatick Sweats, Anxiety, Anguish, Thirst, and the like. For my own Part, I've observ'd nothing more frequent after the exhibiting of a Purge, or any other impetuous Med'cine, than the Exacerbation and Reduplication of the Fever.

In Inflammations of the Pleura, Intestines, Bladder, &c. If the Pain abates of a sudden, while the Fever and other Symptoms increase

with an intermitting and low Pulle, know for a Certainty that a Delirium will come in the space of a few Hours; for it speaks that the Disease is turn'd into a Gangrene. the board of the second of the

I have frequently observed, that such Pleuritick Persons, as came to have Imposthumes in

their Ears, were all cur'd.

Those who in the beginning of a Fever had a Motion to vomit, and thro' the Negligence of the Phylician, or the Impotency of weak Nature, did not actually vomit, I have found frequently to be feiz'd in the Progress of the Dissemper with severe Loosnesses.

In an Obstruction of the Viscers, if the Face keeps up its natural lively Colour, you may readily undertake the Cure; for such Patients may easily be fer right. But if the Face is very much alter'd, and the whole Body is over-run with an universal Paleness and Leanness, avoid to meddle with em if you can; for twill be a hard Matter to cure em. However, the Case is quite different in a Cancer of the Womb; for then the Face keeps to its natural Colour, and the Checks are of a rosy red Colour.

In a Peripneumonia, if the Fever, Cough, and fuch other Symptoms are exasperated the fifth Day, the greater the Exasperation is, the more Affurance you have that Death will enfue on the

Seventh.

6.4

If you are troubled with four acid Belchings, abstain from Wine, and you're cur'd: Instead of Wine make use of Water impregnated with Anife-Seed and Cinamon. After you're well, you may return to Wine again.

In the case of a Sciatica, if you exhibit a Purgative (Syrup of Buckthorn with Wine I commonly use) at the very Hour of the first Invasion, or at least a few Hoursafter, you'll find that after the Operation of this, or at most another fucceeding Purge, is over, the Patient is certainly cur'd. But this will not hold, if the Difease is of feveral Days or Month's standing.

In all Difeases whatsoever, be fure you always mind the Tongue; for that affords a more certain and naked View of the state of the Blood, than any other Sign. All other Signs do frequently mislead us, but this seldom or never; and unless the Taste, Colour, and other Qualities of the Tongue return to their natural State. if you confult your own Credit, you'll never think the Parient well.

As many Days as the beginning of the Fever lasts, the same will be the Duration of the Increase, of the State, and of the Declension. And if the beginning be violent, malignant, or impetuous; or, on the other hand, mild and favourable; the same in Proportion will be the Character of the other Periods. So that a diligent and mature Examination of the beginning of the Disease, is the only Fund from which we can take our Prognosticks of the Duration or Event of a Fever.

When Spots appear in Fevers, take care you make no Effort upon the first Passages: For at that time even Glysters are much suspected.

The later that the Spots appear, and the nearer to the Status or Heighth of the Diftemper, they're fo much the better; for then the

Dif-

Disease tends to a Crisis and Concoction. And the Eruption of the Spots ought to be promoted again and again with Bezoardick and Diaphoretick Medicines, taking care in the mean time to avoid a Looseness by all possible means: On the other hand, if they appear in the beginning of the Illness, they bear an ill Character; for they denote a great Fusion and Dissolution of the Blood.

In intermitting Fevers, if the second Fit is more violent than the first, and the third very gentle, you may depend upon it, the Fever will disappear about the fourth Fit. If the fourth Fit be very violent, and the fifth much slacker, the seventh gives an entire Solution of the Fever. If a Patient dies of an intermitting Fever, he expires commonly about the beginning of the Fit: We have very sew Instances of those who die in the Increase, Heighth, or Declension.

In intermitting Fevers, the Urine is very red, and of a brick Colour; nay, Urine of this Colour, is almost a certain and peculiar Symptom of such Fevers. If the Urine be of a deep red Colour, and drops a Brick-colour'd Sediment when exposed to the Air, let the Form of the Disease be what it will, you may rest assured that it derives its Origin from the Ferment of intermitting Fevers. This I've observed again

and again.

IV.

In several Diseases Remedies do more harm than good; and Benesit is reap'd from Motion and Exercise in the Country Air. Tis the constant Remark of all the most learned Physicians, that some obstinate and chronical Diseases, especially cially those arising from Passions of the Mind, and Grief of long standing, admit of no speedier Re-

medy than riding in the Country Air.

In a very obtinate bilious Colick; in a Phthifick accompanied with a melting Loofness, and the other Symptoms of a desperate Case; in inveterate, hysterick, and hypochondriack Diforders; in a word, in all chronical Difeases. and fuch as arife from an Obstruction of the Viscera: after all other Remedies are tried to no Purpole, we find nothing better than riding out upon Horfe-back; first, for a few Furlongs, and afterwards many Miles, and that chiefly in the Morning and clear funny Weather. This is religiously acknowledg'd by the excellent Dr. Sydenbam, and was mention'd long before him by Hippotrates, Lib. de Diata, 'Tis no Objection, that the Patient is too weak, and so low in Strength, that he cannot be mov'd in his Bed; for in that Cafe, the Exercise must commence first in a Coach, for a few Furlongs, and so proceed gradually to riding on Horfe-back, and that for several Miles. For by this fort of Exercise occasion'd by riding, the Vifcers of the Abdomen are gradually shak'd and jogg'd; the jogging of a Horse falling all upon the lower Belly of the Rider, and the rest of the Members being very little affected. By virtue of this repeated Succussion, the languid and almost flagging Spring of the Fibres is retriev'd; the diminish'd or obstructed Motion of the Humours and Spirits is rouz'd up; and what Viscidity sticks to the Glandules of the Viscera, recovers its lost Circulation. Now the Ferments of the Viscera being thus reftor'd and exalted by a continued Courle of Riding, not only their concocting Faculty. but even the Secretion of the Humours, is put úpon

upon the primitive and healthful Foot; and the peccant Matter that has fo long hung upon em. is thrown out by fuch Passages as Nature finds convenient. I ought not to conceal this Secret of Exercise in the way of riding from the Citizens of Rome, where the Atmosphere is almost perpetually cloge'd and foul'd with moist cloudy Weather; and confequently has but a small claflick Force; so that tis no Wonder, that it commonly occasions a loofe Flagginess in the folid Parts of the humane Body, and a fluggish Inadivity with a fort of Clamminess in the Fluids. Tis for this Reason that the three Diseases, describ'd by the Learned Petronius, de Victu Roman. rage chiefly in this City; I mean, a constant Heaviness of the Head, a Weariness, and a costive Belly: From all which 'tis manifest, that in the Air of Rome the Motions both of the folid and fluid Parts become too languid; and that this Air will ever be the Bane of the Health of the Inhabitants, unless they call up and increase the Motion of the Humours and Spirits by exercifing themselves abroad; that so the Humours and Spirits may have a clear Passage thro' their Pipes, and the Tone or Spring of both being thus retriev'd, Concoction and Secretion may be perform'd in the Viscera, and other Parts of the Body, purfuant to the Laws of Nature.

V.

Tis an ugly Sign, if about the beginning of the Status or the Heighth of the Disease, the Urine being reddish, and much loaded with great Plenty of excrementations Contents, changes gradually to a pale and thin Consistence; if the Pulse becomes quicker, weak, and almost wavering; if the Tendons start, especially while the Pulse is selt; if Talkativeness, fearful Dreams, and such other Symptoms appear. For in that Condition, you may expect the speedy Arrival of satal Symptoms in the Head; namely, Deliriums, Watchings, Coma's, and even Disorders in the other Parts; but above all, the Change of the Fever into that of a malignant Form.

In Fevers, the Strength of the Spirits is known to a Certainty from the Pulse; so that if the Pulse be strong and equal, we always have good Hopes, notwithstanding the Appearance of Debriums, Convulsions, Tremblings, and the other perverse Symptoms of the nervous Family. On the contrary, if the Pulse be very quick, weak, and wavering, the all the other Symptoms promise a Recovery, we are always apprehensive; for generally such a Pulse is the Harbinger of Death.

As long as Feverish Persons spit, they are out of Danger, in continual as well as intermitting Fevers. A foul Tongue is always suspected.

With respect to the Phanomena of a Fever, 'tisbetter known than any other Distemper; but with regard to its Constitution and Cause, 'tis-

the least known of any.

In a Cachexy or a Dropfy of the Breast or Belly, if a ruddy and indifferent good Colour of the Face, shifts on a sudden to a wan Lead Colour, the Patient will die suddenly in the Space

of a few Days, or a Month at most.

The Children of great Men, are oftner killed with an useles Load of Remedies, than with the Force of their Illness; especially if their Illness is acute. Let me advise you, in such Cases, to use but sew Remedies, and even those with Prudence and Caution.

VI.

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If a spontaneous Diarrhaa, or an acute Fever comes upon a Fit of the Iliack Passion, the Patient will die in a short time.

If a Guita Serena follows an Apoplexy or Epilepfy, 'tis a Sign of Death, or at least of the

Vehemence of the Difease

In the Iliack Passion, the stronger Remedies you give, whether Purgatives or sharp Clysters, the more you constipate the Belly; for these increase the Frizzling and Contraction of the Fibres: But anodyne, emollient, and dissolving Med cines are beneficial.

If an Iliack Fit is attended by a Suppression of Urine, Strangury, Hickup, Inslation of the Belly, or Convulsions, the Disease is mortal.

Madness and Melancholy are so near allied, that oftentimes Madness turns to Melancholy, and frequently the beginning of Melancholy relishes somewhat of Madness; as the learned Do-

donaus has well observed:

When Women are ill of a Gonorrhæa, or under their menstrual Flux, they have a livid Leadcolour'd Ring under their Eyes; which may be reskon'd one of the Diagnosticks of the Diseases of Women.

In acute and dangerous Diseases, a low, quick, and (as twere) staggering Pulse, is oftner fol-

low'd by Death than by Recovery.

In acute Fevers or Diseases, the Urine, call'd Subjugal (that is, resembling the gross, muddy Urine of Oxen) is always a Sign of Disorders in the Head. If when this fort of Urine comes, the Pulse is low and weak, and the Patient is sleepy, or affected with a Heaviness in the Head.

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you may prognofficate from thence that fome fleepy Diffemper, and particularly a Lethargy is just at hand. But if that Urine is accompanied with Watchings, Head-aches, Thirth, parch'd Tongue, a burning Heat in the Bowels, and the like, you may forerel that a Delirium, or Convulsions, or the other Disorders of the Nerves will be upon him prefently. Tho' this Subjugal Urine is an ill Sign in acute Diseases ris a good one in fome chronical Distempers particularly, a Rheumatifm, Gour, &c.

Some are wont to be troubled three Hours before Dinner with Diforders in the Stomach; particularly, a Pain the Stomach, Wind, Crudities, &c. And in such Cases, I have experienc'd the specifick Vertue of Querceramis's Stomachick given at that very time to half a Dram in a Diffi of Coffee; especially if the Constitution of the Body be moiff with vifeid Humours; and above all, if the Person lives intemperately. The Tin-eure of the Bark of Sassafras-wood, extracted with Spirit of Wine, and given at that Hour, to two Spoonfuls, or even repeated leveral times a Day, dispels Wind in the Stomach, almost in a Minute of Time: And the fame is the Vertue of the Tincture of Ground-Ivy drawn with the same Spirit.

Oil of Mint is beneficial in all the Discases of

the Stomach.

The Hectick Fever of Pocky Persons, the it feems to be desperate, is very easily sur'd, by carrying off the Seeds of the Pox with Specificks proper for that Difeafe.

In the continual Fevers of Women in Childbed if they are feiz'd with a Difficulty of Breathing,

tis always dangerous; for most of em die.

Among all the Signs of a dead Færus in the Womb, given in by Authors, a Tenefmus, or frequent Inclination to go to Stool, is the most certain, and next to infallible.

A Jaundice happening in Fevers, is always monftrous; and fuch Fevers are feldom without

Malignity.

Sweet things are improper in Fevers; so you ought to avoid the use of Sugar; for it inflames the Disease, especially in Children, or in hypochondriack or hysterick Persons.

In malignant Fevers, above all things, mind the Eyes, Tongue, and Hands; a foul Tongue and trembling Hands are always dangerous in a-

cute Diseases.

In the malignant Fevers, in which the offenfive Humour is to be expell'd from the Center to the Circumference of the Body; before the Expulsion, there's a Difficulty of Breathing, and great Anxiety in the Breast, which decline by Degrees after the Expulsion is effected. This I have frequently observed in spotted and scarlet Fevers, in the Measses, Small Pox, and the like.

In a Plague, the fooner the Buboes break out, the better for the Patient; for by that means the internal Parts are kept clear of the Conta-

gion.

The Itching of the Nostrils, is an infallible Sign of a simple Synocha; and so is a gentle Moisure upon the Skin, according to Walschmid.

I've observ'd several times, that a Lipyria Fever (i. e. that in which the outward Parts are cold, while the inward burn) disappears immediately upon the Accession of a Cholera: But not so upon the Appearance of Sweat, or Urine; for which Reason Diaphoreticks and Diureticks ought to be cautiously us'd in such Fevers.

I ne-

I never faw a bleeding at Nose succeed well in a Spotted Fever; especially if it be attended with many grievous Symptoms.

In Fevers occasion'd by the Alteration of the Air at Rome, I've observ'd that Sleep insued upon bleeding in the Arm; but not so in the Foot.

I made this Remark in the Hospital of Rome, in Summer 1693. That in acute Diseases, most of those whose Blood drawn by Venesection had a white chylous Crust upon it, recoverd; and those dy'd, whose Blood was very rutilant, or had too red a Surface.

I commence the Cure of all acute Fevers, by letting Blood, being taught so to do by Experience; for I have frequently observed, that the Bleeding was followed with a Sweat that eas'd the Patient.

In malignant Fevers, Bleeding in the Arm inflames the Disease, and turns its whole Force upon the Head; whence insues soon after Deliriums, sleepy Disorders, &c. But Bleeding in the Foot is beneficial. This Observation I made at Rome in the Hospital.

A Caustick apply'd to the Legs, cures the Gutta Rosacea, and other Rednesses of the Face, when all other Remedies are inessectual: Witness Mercurialis Lib. de decoratione, Cap. 13. And this Observation I had given me as a mighty Secret by a very learned Physician at Padua.

In the Diseases of the Face, Purgatives are the principal Remedies; as we are taught, not only by Experience, but the Divine old Gentleman, in Coacis; where he speaks to this Purpose: The Belly being mov'd to a frequent Evacuation of a small Quantity, takes off the Eruptions of the Face. And again, de Diata, Lib. 2. Purgation draws the Humour from all Parts of the Body, and chiefly

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from the Head, if it be hot. Now the Evacuation of the Head purges the Eyes, Nostrili, &c. and renders the Face cleaner and clearer complexiond. So

far Hippocrates.

The Fevers that commence with great Swoonings, or a Hiccough, or a Vertigo, are still by Physicians, Syncopales, Singultuofe, and Vertiginofa. The Cure of fuch Fevers must begin with Vomits out of hand; for the Ventricle is the Seat of the febrile Cause; namely, a sharp gnawing Humour, which by twitching the Coats of the Stomach, and propagating its Influence by Sympathy and Confent, annoys the Heart, Diashragm, or Head; from whence the foregoing symptoms arise. The Vomit I commonly use in these Cases, is Oil of fweet Almonds, and When the Vomiting is over, and warm Water. the Salts thereby diluted, I presently exhibit reflaceous Powders, with dulcifying Med'cines and Emulsions made with Whey, or the Decociion of Violets. By this Method I recover 'em happily I in a 100 a

The abovemention'd sharp Humour galling the Coats of the Stomach, is likewise in the Fault in such Fevers, or even other Diseases, as begin with a great Anxiety and Restlessness, infomuch that the Patient can't stand still, nor avoid tossing in his Bed. And the only Remedy in such Cases, is a Vomit made of the Insuson of Crocus Metallarum in Wine; or of warm Water, with Oxymel of Squills: For the Vomiting is no sooner over, than the Patient is eas'd; especially if he be much troubled with the Heartburn, and other Disorders of the Stomach. Next to Vomits, you may give, by way of Precauti-

on, the Powder of Cornachini.

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The nearer a Fever approaches to the Heighth, the lefs we infilt upon the refrigerating Remedies, for fear of oppoling the Criss: But in the beginning, they ought to be liberally prescribed; for then the overbearing Edge, Force, and Rage of the febrile Heat threaten dismal Symptoms, unless they be mitigated by the prudent Repetition of moistening and diluting Medicines, and the Motion of the Blood reduced to that Mediocrity, that's sufficient for making a Depuration.

The mortal Diseases of the Lungs, whether with or without a Fever, are, for the most part, attended towards the latter End with Disorders in the Head; namely, Over-sleeping, Lethargy, Giddiness, Dimness of the Eyes, &c. I've seen a St. Anthony's Fire in the Face speedily cur'd by the Prescription of a proper Purge; and this was one of the Arcanims of a Padua Physician, that was my very good Friend.

Costiveness is good for old Men, and a loose Belly

benefits the Toung. Celfus.

I have made the Observation twice, that those who are troubled with an obstinate Hoarseness.

die Hectick within a Year.

The Pains of the Head arise, for the most Part from the Stomach; and if you are satisfied they do, make use of Stomachicks, Clysters, and a regular Diet. I do not speak of the pocky Pains and inveterate Hemitrania's, that derive their Origin from another Source.

VII.

The Cautions of Nature must be obey'd; and tho' we can't sathom'em, we must still obey; for its Progress is regulated not by fortuitous, but

by constant and perpetual Laws. This will appear more evidently from the following Instances.

A Woman at Padua was wounded with a Pistol loaded with very small Bullets, about the end of the short Ribs on the left side; the Whalebone of her Stays being broke with the Force of the Bullets. In the Progress of the Cure, she was feiz'd with a grievous Cough, and cough'd up feveral Pieces of that Whale-bone, to the great Surprizal of those that were by. What Way Nature brought this about, is a thing unknown. After the Wound was cur'd up, the Woman was taken with an insufferable Pain between her Hips; the Pain was follow'd by a Tumour and an Inflammation, which came to Suppuration: This being open'd with a Lancet, the Surgeon took out from thence the little Bullets that had made the Wound in her side; and so

the Woman recover'd perfectly.

A learned Man at Rome having took a Clyster of warm Water, kept it intirely in his Intestines; and not long after voided the whole Clyster by Urine, without the passing of one drop by Stool. And this, he told me, he had done frequently. Benivenius of Florence has much such another Ob-Servation in his Observat. Rarior. Cap. 7. namely, That a Boy of twelve Years of Age, after a Suppression of Urine for seven Days, voided it by Anatomists have been Stool, and recover'd. long at work, to find out Passages to convey Water directly from the Intestines to the Bladder: But their Labour has hitherto been in vain. Bonetus in his Medic. Septentr. Tom. 2. f. 652, and the Transactions of England for Octob. 1670. make mention of these new Ducts or little Canals; but the Truth is not fet in a clear Light, and so they are not fully credited. In the mean time,

if one should affert, That the Water passes into the Bladder thro' the Pores of the Vessels and Membranes, as the Hydropick Water passes out of the Cavity of the Abdomen into the Intestines, by virtue of a Purge; would the Assertion be approv'd or disapprov'd? I leave the learned

World to judge of it,

A Man of forty Years of Age fubject to the Piles, was troubled a long time with a hard and prominent Swelling in the middle of his Breaft; and having try'd to no Purpose all forts of Remedies, both internal and external, for the space of nine Months, was feiz'd on a fudden with a hæmorrhoidal Flux; upon which the abovemention'd Humour disappear'd presently, and almost incredibly, and the Patient recover'd. This same Person is, upon a Suppression of the Piles, oftentimes troubled with a fort of red Swellings in his Fingers, which yield to no Remedies, but disappear the next Day after the Hamorrhoids begin to run. Here I could infert several Instances of the wonderful Usefulness of opening the hæmorrhoid Veins, (notwithstanding the Circulation of the Blood) beyond the opening of other Veins; and that in fuch as are troubled with Pains or Heat in the Hypochondria, a Heaviness upon the Loins, Wind, Distentions, and Rumblings in the Intestines, and several other Disorders of the natural Viscera, besides other of the Vital and Animal. But in regard Hippocrates, Lib. de Humor. & Epidem. 6. has fet down the Benefit of the hamorrhoidal Flux, I shall content myself with inserting his Words. Those, fays he, who have the Flux of the Hamorrhoids, are neither troubled with the Pleuriff, nor a Peripneumonia, nor eating Ulcers, nor Fellons, nor the little Swellings, call'd Therminthi from their Refemblance.

femblance of a Vetch; and, perhaps, not with a Leprofy or Morphew.

VIII.

If Pleuritiek Persons do not begin to disburden in the fourth Day, but on the contrary, the Fever and other Symptoms increase, being accompany'd with a great Difficulty of Breathing and Snorting, Death visits them on the Seventh; and in such Cases the Feet use to swell, and the Eyes to grow dim, before Death.

A Scirrhus of the Bladder bears an exact Refemblance to a Stone in the Bladder; pursuant to what I have seen twice in the Dissection of

dead Corps.

Gross Urine, full of Sediment, whitish, viscid, and sticking to the Chamber Pot, is no inconsi-

derable Sign of a Stone in the Bladder.

Those who are seiz'd with an inward Aneurisma, or Rupture of the Arteries, die either suddenly, or of a Spitting of Blood. I would advise all such Persons to abstain from too much Motion, from Venery, Anger, spirituous Liquors, and whatever inslames or disturbs the Motion of the Blood. Let them use a Milk Diet, moderate Motion, and Food of some Viscidity.

Aneurisma's proceed from a Rupture of the Tunicle of an Artery: Varices arise from the Rupture of a Valve in the Veins; and the Hydatides are occasion'd by the broken Valves of

the Lymphatick Vessels.

In all the Diseases of the Breast, especially a Spitting of Blood, and a Pleurisy, the thinnest Diet must always be prescribed; for fear the Blood swelling with too much Chyle, should drive

drive impercoully upon the tender Parts of the affected Lungs.

A hard Pulle is a constant Companion of a Pleurify, as a fost Pulse is of all the other Difeases of the Lungs: And this you may place among the distinguishing Signs of such Diseases

of the Breast as are hard to be known.

In a dangerous and fuspected Fever, if a Swelling happens in the parotid Glands, without any great Pain or Sufpicion of Inflammation, burn it presently with a hot Iron, to the end that the malignant Matter may be push'd outward, and thrown out by Suppuration. For otherwise the morbifick Cause may retreat to the nobler Viscera, and occasion Death. Valefius, among other Authors, recommends this Cure; and I have fometimes feen it perform'd with good Success, by the Direction of a learned old Phylician, in the Hospital of Padua. If a Swelling of the parotid Gland appears symptomatically, it always portends Death; as Riverius has observed more particularly. If it comes critically, tis a good Sign. Now a Parotis is call'd symptomatick, if it appears at a time when the Symptoms are still high, and the Disease is rather inflam'd than abated.

If in Coughing, little things like Grains are brought up, and these Grains stink extremely when squeez'd with one's Fingers, they are a certain Sign of a latent Vomica or Imposthume in the Breast; especially if the other Signs accompany em. Forestus has observed, that in such Cases, upon the breaking of the Vomica or Imposthume, for the most Part, the Patient dies suddenly.

All the Suppurations of other Parts discover themselves by the accession of a Fever, and a Shivering; only the Suppuration or Vomica of the Lungs, steals on without the foresaid Signs. And this ought to be seriously minded by young Practitioners.

In an Imposshume of the Lungs, Abscesses in the Ears and Feet are good, according to Hippocrates; for a Vomica uses to discharge itself by these two Places, as its two principal Emun-

ctories.

Oftentimes a Quinsey proceeds from a Suppression of the Terms or Hæmorrhoids; which

ought to be carefully minded.

If a Quinsey that's truly inflammatory and fanguineous, as they call it, does not yield to two Bleedings, let scarify'd Cupping-Glasses be apply'd to the Shoulder-blades, and the Case will alter to the better. Of this I have seen several Instances.

I cur'd a Woman that was frequently subject to the Quinsey, by raising a Cautery in her Arm, after a fruitless Trial of other Remedies; nay, Cauteries and Scarifications of the Shoulder-blades, are always beneficial in such Diseases as are seat-

ed about the Neck of Face.

In all occult Quinseys, if the Patient be seiz'd with a Pain in the side, the Pain about the Neck and Throat, and the Difficulty of Breathing and Swallowing being much abated; it signifies that the Quinsey is turn'd to a Peripneumonia. Now this Change is very pernicious; for either speedy Death or a Suppuration insuces; as the Learned Dodonaus has well observed out of Hippocrates.

IX

In all Diseases, especially those call'd acute; if an Inflation of the Abdomen appears and continues, 'tis the Harbinger of Death. Of this I have had infallible and frequent Proofs in the Hospitals up and down Italy.

If in acute or other mortal Distempers, the Tongue is cold, Death follows soon after. This Observation was communicated to Riverine by Pecquetus, and I have sometimes observed it my

felf.

If any Disease, if the Appetite be weak and sunk, and comes to be very keen all on a sudden, without any Crisis or Diminution of the Disease, the Patient will die soon after: for it signifies, that the Brain is disorder'd, and the sensitive Faculty sunk. This I once prognosticated, upon Sennertus's Authority, in the Case of a Girl that had been long ill; and accordingly she dy'd next Day.

If a Patient, extenuated with acute or chronical Diseases, Wounds, or any other Way, voids by Stool black Bile or black Blood, as 'twere, he'll die the next Day: Hip. Sett. 4. Aph. 23. Upon the Credit of this Prognostick, I foretold Death

four times in our Hospital.

A Leek-colour'd or green Flux of the Belly, denotes either Déath or a Disease of long standing; as I have oftentimes observ'd, especially in acute Cases.

In a Fever, if a great Swelling appears in the Perinaum, occasioning a Suppression of Urine, or a Constipation of the Belly, 'twill turn to a Gangrene and kill the Patient. Tulpius and Constin Epidem. I have experienc'd the Truth of this

Prognostick in two several Instances, to my great

Surprifal.

In a Fever, if the Patient does not sleep at all, but lies still without the least Complaint, and does not speak, but when a Question is ask'd him; and when his Pulse is felt, draws back his Hand in a trembling Condition and Hectick, as they call it, he'll certainly die. River. in Observ. I've feen many such Patients die in our Hospital. And, for that Reason, when you feel a Pulse, be sure to take notice whether the Hand trembles of not; for if it does, Death is very seldom put off.

In acute and pernicious Fevers, observe at all times whether the Face is much alter'd; if 'tis

there's Danger in the Cafe.

If the Sides of the Nostrils are arched and raifed, as 'twere, with a flat Nose and a ghastly Countenance, it portends Death; as I have frequently observed.

If a Pulle intermits in one Pullation, it speaks present Death. Upon this Precept of Galen's, I predicted Death three or four times in acute

Difeafes, in our Hospital.

If in bleeding for a Pleurify, the Blood does not get out, either for Pain or Thickness, order the Patient to cough forcibly, and twill present-

ly gush out. Tulpins.

I do not know that any Author has yet tried, whether the Peruvian or Jesuit's Bark injected in Clysters, communicates its febrifugous Vertue to the Body. For my own Part, I try'd it lately at Rome in a Boy of five Years of Age, that was ill of a double Tertian Fever, and would take nothing down at the Mouth, which made his Case almost desperate. In the Morning I injected a scouring Clyster, and half an Hour after

Bark with Barley water; and the last being repeated every Day, the third Clyster dispelled the Fever, and the Boy recovered beyond all Expectation. This Adventure of mine, may serve to egg on other Practitioners to give further Confirmation of the Matter.

TX.

Let Pleuritick Perfons, and Women in Childbed avoid Purgatives by all means.

The chief Diseases of Women in Child-bed, arise from the catching of Cold, the Passions of the Mind, and a plentiful cold Diet.

Sal Prunellæ is a Specifick in ardent Fevers.

A dangerous and copious Super-purgation is stop'd immediately, by exhibiting a Dram of Venice Treacle in Wine. This I have experienced, upon the Observation of the learned Dodonaus.

The two great Remedies for chronical Diseases arising from Obstructions, are Steel and Rhubarb. In my own Practice, I prescribe thus: Take of sulphurated Steel (or any other sort) fifteen Grains; Rhubarb in Powder, a Scruple: Mix, and drink above it a bitter and diuretick Decoction; not neglecting Exercise in the Morning.

The Chronical Diseases of the natural Viscera (or those of the Abdomen) are cur'd in great Measure, by riding out in the Country, and frequenting pleasant Places; a especially if they depend upon the Passions of the Mind: For Med'eines are sometimes fruitless, and indeed hurtful; particularly, in such Diseases as proceed from a careful and anxious Mind: Of which, more at large in the instring Chapter.

CHAP.

CHAP XIV.

Of the Cure of the Diseases of the Mind; and the Method for giving their History.

SECT. L

A LL Men have their own Cares, and every one lies under a bitter Necessity of spending almost all the Periods of his Life, in attending the doubtful Events of his Labour. Now this being true, 'tis equally a Truth obvious to all Men, that a great Part of Diseases either take their Rife from, or are fed by that Weight of Care that hangs upon every one's Shoulders; especially among those who live high and plentifully: For fuch Men are more affected with the Motions of the Mind, than those of the Body; and the Diseases of their Bodies are frequently inflam'd by those of their Minds. Upon this Consideration, I would have all Physicians to be cautious and diligent, in putting Interrogatories to their Patients, with reference to the occasional Cause of their Illness; and particularly to the Passions of the Mind. This Conduct will be more seasonable, than that of running on withour any further Enquiry, and promiscuously imputing all Diseases to a fabulous Fancy of Repletion and Cacochimy. For the Variety of external and occasional Causes, dives a various Turn to the Method of Cure; of which more at large, Book 2. Chap. 9. So that the levelling of the Cure of all Diseases at Repletions, is to my Mind a falle Method. I own that Repletion gives Rife

to many Diftempers; but the Passions of the Mind give being to more; especially among Masters of Families, or such as are loaded with careful Concerns, or those who sit in Places of Dignity, most of whom have other things to think of, than overcharging their Stomach with Gluttony or Drunkennefs to make the relief of they control in Arms aright, 'w these eace'd

to legicier Part of this revene : " and and the In order to a fuller Explication of this Matter, there are three Things that require a Solution; namely, whether the Passions of the Mind have an Influence upon the Body; how that Influence is convey'd, and by what means the Dif-cases arising from thence ought to be cur'd? That the Passions or Commotions of the Mind act upon the Body, is certain, and apparent from daily Experience. Anno 1690. In Dalmatia, I faw a young Man feiz'd with violent Convulfions, only for looking upon another Person that lay groveling upon the Ground in a Fit of an Epilepfy. The Writings of Authors are full of Accounts of the Power of Imagination upon the Organs of the Body; and to these I refer the Reader. A great many Men, who are otherwife strong and hale, eat their Meat sparingly and timoroully, for fear of contracting Crudities, and fo falling into Diseases: And, in the mean time, this their vain Fear and fickly Imagination occafions a bad Digestion of the little Food they eat, and that throws them into Sickness. On the other hand, the Inconsiderate and Foolish, and others, who are not very follicitous about their Health, will over-eat themselves, and yet digest what they ear, and enjoy a found State of Health. Of this we have a fignal Instance in the rustick

and meaner fort of Perfons, who have not for great a Struggle with their Affections, and know how to throw of all Senie of Grief and Care, by a certain Negligence in the Way of Life. Hypochondriack and Melancholy Perfons, and shofe who are naturally timorous and inconstant. are oftner fick than other People, by reason that they cannot moderate aright, or check the Paffions of the Mind, as I shall shew at large in the fubsequent Part of this Treatise; and the the Difeafes of fuch Men may at first View feem pernicious and incurable, yet they are wont to be eafily our d, not by an overbearing Quantity of Med'cines, but by agreeable Conversation, or the Pleafures of the Country and frequent riding, or elfe by a Way of living adjusted by a prudent Physician. In the beginning of a Plague, many are feiz'd with it, and die of it, because they contract the Illness rather thro Fear and Concern for the publick Calamity, than by Contagion : But in the Progress of the Plague, the repeated Observation of what happens, renders Men less featful and wavering, fo that they are not fo eafily feiz'd; and if they are, they are eafier cur'd, pursuant to the Observations of creditable Authors. Women are more subject than Men to Difeafes arising from the Passions of the Mind, and more violently affected with them, by reason of the Timoroufness and Weakness of their Sex. This we see, above all, in the Diseases of young Women in Love. The Green Sickness, the frequentest Distemper they have, is cur'd, after a fruitless Trial of all other Remedies, by Matrimony alone, as the Learned Panarolus has well observ'd. From this, and several other Instances. a natural Inference may be drawn, that fome Difeases are really produc'd by the Passions of the

the Mind, and that the Power of Imagination has a great Influence both in producing and curing them.

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Those who sicken upon the Disorder of the Mind, use chiefly to be soiz'd with the Diseases of the Stomach; as, among other Instances, appears from Persons afflicted with Grief, who complain first of a Faintness in their Stomach, and foon after, of an Inapperency, a bitter Tafte in the Mouth, and Thirlt in the Morning, acid and nidorous Crudities, Wind, Destention of the Hypochendria, and the other Symptoms of a diforderly Chylification. The Chyle being indigefled and pall'd, for the foregoing Realons, gradually infects the Mass of Blood; and the various Diforders of the Blood give Rife to divers Difeases, both acute and chronical; and patticularly to Obstructions of the Viscera, the Source, hypochondriack Illness, Oc. Students, and those that read hard, complain likewise fielt of their Stomach; and, by degrees, the Mass of Blood and folid Parts come to be affected. And indeed tis no Wonder it should happen so; for a great Quantity of Spirits being diffipated in both, by virtue of their over-keen and tirclome Thoughts, the Ventricle thus robb'd of Spirits, generates instead of good Chyle, an acid, viscid, and undigested Glue, which breeds Blood of the same Nature, that gives Rife to all the difmal Symproms. Let this therefore stand for a Corollary, That in Discases arising from the Mind, the chief Regard ought to be had to the Stomach. and the first Concoction; and the oppress'd and almost funk Spirits ought to be rouz'd up and M 2

exhibitated: So that we must not follow the common Course of commencing the Cure of all Diseases without Distinction, with Purging Bleeding, refrigerating and moistening Med cines.

IV.

which folder about the Difurder of the If a Patient is feiz'd with an Illness during a Passion of his Mind, it uses sometimes to last as long as the Passion; and will rather shift to a Discase of another Form, than quit him altogether. I observed this particularly of late in a Woman of forty Years of Age, that was thrown by the deepest Passions of Mind into a great Flux of Blood from the Womb, of which the was curd, after using several Remedies for the Space of three Months . But the Same Concern, and Passions even of greater Violence, continuing for almost a Year, the was no fooner cur'd of that Flux of Blood, than she was seiz'd with a running from the Womb, that was fometimes white, and fometimes particoloured. After this Running was stopt, the was feiz'd with Anguish at Heart, Anxiety of the Breaft, extream Weakness, Leanness, Inappetency, Thirst, a lingring flow Fever, a falling off of the Hair, and the like of which continued, and held out for fix Months against all the Power of Remedies. To compleat her Mifery, the was taken first with the Swelling of her Legs, then with and Afcites, and at last with an Universal Dropfy all over her Body. After all, being worn out with Care, and miserably tortur'd for five Months with a Legion of Illneffes, the remov'd to the other World

Gonsidering that the Spirits are mightily disturb'd by the Disorder of the Mind, and upon such Occasions are a most always distracted here

and there; tis no Wonder the Virtue of Medicines should be thereby impair d, and the best Remedies should rather corrupt in the Stomach thus depauperated of Spirits, than give the expected Benefit. For Remedies do no good in a perturbated State of Life; and tho they are taken in their Motions are not obey d. The Difeafes therefore arising from the Passions of the Mind, must be gently and fostly treated; and we ought to abliain with the utmost Caution from too many, as well as too violent Remedies. Above all we must take care of the Spirits, and rouze em up if they're oppress'd, or pacify em if sharp and irritated. If they are otherwise diforder'd, we must exhibit Remedies proper to their respective Condition; and especially recommend fuch Food as gives the best Juice, and exhilarating Wines to be drunk sparingly or plentifully, according to the Patient's Constitution. corporations a Loofspeig or effe a Fruer, if a

be very violent. Grich Vnd the other Pathons of

are copable directly to produce ma-As for the Mechanick Way in which the Palsions of the Mind produce Diseases, rwould be required to folve two very difficult Problems; namely, first, in what Manner, and how far the Humours and Temperament of the Body act upon the Soul, and change its Motions: Secondly, how, and how far the Motions of the Mind in-Suence and alter the Body: But confidering that the most tow ring Genius's of all Ages, have fatigu'd themselves in vain upon this Solution; and that scarce any, besides Cartes, have advanc'd any thing upon the Head, that bears a Colour of Reason, it will be allowable in us to skip these knotty Difficulties, that relate but little to the Cure of Diseases. Indeed I take it to be

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necessary for us, to pursue with Diligence what regards the naked and pure History of every Paffion, and the Difeates that retain to it; for few of our Profession have hitherto made any Trial that Way. We want a History of the Diseases that fpring from the Cares of the Mind; to fet forth what Difeafes foring from any Motion of the Mind, what Symptoms attend em, how they increase and decline, how long they continue, and into what fort of Distemper they use to change; what Remedies allay, and what exafperate the Illness; what proper and standing Method of Cure has been yet differer'd for each of em, and an infinity of other things. For as Grief produces nothing more frequently than Loofenelles, which grow incurable upon the long Continuance of the Caufe of Grief, and at last call in an erratick Fever, with a walting of the Body, which cuts the Thread of Life. So Anger occasions a Looseness, or else a Fever, if it be very violent. Grief and the other Paffions of the Mind, are capable directly to produce malignant Fevers, as we fee in the Sieges of Towns, in which malignant Fevers rage in that Juncture, and are more dangerous than at other times; this being occasion d, according to the Opinion of the most Learned Physicians, by the Dejectednels of the Besieged. And as Diseases arising from Care are hard to be removed while the Solicitoufnels of the Mind continues, or elfe turn into Difeases of another Form, as I intimated above; fo a great many Things of this Nature. relating to the History of such Diseases, might easily be found out. that or grane alloworks of Places in America

It remains now to touch upon the Cure of fuch Difeates, and indeed it must be own a before we go further, that almost the whole of the Cure lies in the Patient's own Breaft; that is, in a Mind well foreify'd with Patience, Forti-tude, Prudence, Tranquility, and the other moral Vertues, without which all Manner of Remedies, and all the Efforts of Physicians, will be e'en a'most vain and useless. For the Remedies in the Apothecaries Shops, that go by the Name of Exhilarating, Antimelancholick, Comforters of the Heart and Memory, Whets for the Genius, Oc. are rather invented to favour the Pomp of the Art, than to difpel the bitter Cares of the Mind, or to rouze a drooping Spirit. I confess indeed that somewhat may be done against the Discases of the Mind by such Remedies, as are able to change the Mafs of the Blood thoroughly, and do not act superficially, but penetrate to all the inmost Recesses, both of the sluid and solid Parts of the Body. Such are frequent Bathing, the Choice of particular Food, or a Diet calculated for the Distemper, scasonable Exercise, travelling into Foreign Countries, hunting in pleasant Fields, and near the Sea fide, continuing long in the Country-Air, and riding frequent-ly, the use of Musick, Dancing, and the like; all which, by virtue of the foft and gentle Delights they give to the Mind, do gradually repair the fickly Constitution of the Body, and reduce the disorderly Motions of the Imagination to their Primitive Regularity.

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VII.

That the Hinge of the Cure of Diseases of the Mind, is fix'd in the Mind itself, will appear from the following Particulars, that Experience has given us to know. 'Tis the Affertion of learned Men, that when Med'cines prove ineffectual, several Diseases are conquer'd at last by Patience, and Tranquility of Mind. And thence it is, that those who are drown'd in Domeltick Cares, or affected with Passions of the Mind, if they are taken ill, they'll either find it hard to get through, or will be affected after a severe and unwonted Manner, unless they get quite clear of the foregoing Causes, or call up a due Moderation and Tranquility of Mind. This I would have all Physicians to mind, when they visit their Patients; for if their Case is such, Remedies are of no Use; nay, perhaps they'll do harm, if they be either too violent, or given to a great Quantity. The Women that are not timorous, do not not eafily mark the Child in their Belly; neither are they too much subject to the Emotions of Imagination. A Man of unshaken Constancy and Firmness of Mind, that enjoys Tranquility in the midst of Waves, and is not seduc'd either with Hope or Fear; that Man (I say) is feldom seiz'd with Diseases arifing from the Mind. And if he is, he will overcome em with the same Felicity that raises him above the Tumults and Turmoils of the World; and that without the Affishance either of Physick or Physician. On the other hand, those who are timorous, foft, tender, nice, peevish, impatient, and Slaves to their Affections; are not only oft'ner fick than other People, but bear a heavier

heavier Weight of Illness when they are, and create an infinite Trouble to a Phyfician, upon the Account that they perpetually call up the Sense of their Illness by that affiduous Struggle of interfering Cares; and, by the continual Disturbance of their Spirits, vary and perplex the wonted and regular Periods of the Disease, and the Symptoms. Farther, a great many People feverely wounded have been happily cur'd in a thort time, because they bore their Wounds with Patience and Intrepidity; while others but flightly wounded, have speedily fall'n a Sacrifice to their own Fear and Despondency. Some thro Indignation and Impatience, turn the flightelt Disorders into long and mortal Diseases: Thus a Cough, contracted by Indignation and a customary Trick of Coughing, degenerates very easily into a Phthisick. On the contrary, others have strenuously surmounted the most weighty and afflicting Diseases; and that by no other means, but undergoing 'em with Heroick Constancy and Tranquility of Mind, and even bearing 'em patiently, as being the chief Monuments of our Corruption. the processing the

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We therefore lay this down for a Certainty, that Diseases arising from the Care and Anxiety of Mind, will hardly be alter'd by Med'cines, unless the Mind be restor'd to a State of Tranquility, and gain the ascendant over the Possions, that so the turbulent and raging Spirits may recover their Primitive Harmony and Repose. So that when a Disease does not yield to proper Remedies seasonably prescrib'd, and proceeds after a strange and unwonted Manner, we ought

ought to suspect the occult Passions of the Mind. which a Physician may be inform'd of by the Patient's Friends and Attendants. Sometimes the Suspicion may run upon Venereal Contagion, or Hysterick Cases in Women, or Worms in Children; but of this more in the Second Book, Chap. 9. From what has been faid, we may make this Inference by way of Corollary, That those who bear Trouble patiently, use seasonable Exercise, and live soberly, are not readily fick; and if they are, a discreet and prudent Ufe of Remedies, join'd to their wonted Patience and Tranquility of Mind, will quickly fer 'em right. 'Tis likewise an obvious Inference, That the Phylician who knows how to manage dexteroully, and fway the Motions of his Patient's Mind, will happily extirpate Diseases that are commonly taken for incurable. In the mean time we must take notice that this Method is only to be purfued, when the Parient is Compos Mentis, and not affected with grievous, malignant, acute or delirious Diseases. In these Cafes, indeed, we must insist upon the proper Remedies: But always take care to proceed gently and calmly; for fuch Diseases proceeding, for the most Part, from the Perturbation of the Spirits and Humours, violent strong Med'cines will add to the Flame. that the faller distributions and Care and Acid

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Thus we have shewn the Power of the Passions of the Mind, in producing and nourishing Distempers, and the Vertue of Constancy and Tranquility of Mind in surmounting em. But in regard such fortifying Ingredients are lodg'd only in the Patient's own Breast, as I have provide

at large, it remains now to fet forth what relates to the Phylician. The Phylician ought to emthe depreisd Spirit of his Patient, by any means whatloever; either by smoothing him with fair Words, or humouring him with agreeable Medicines, and precending that fuch Med'cines are the only effectual and fovereign Means to cure him; or by preaching up the Excellency and Sublime Nature of humane Mind, which can't endure that its starry Original should be depress'd by the Usurpation of the Senses, the Authors of a confus'd and tumultuous -Life; or at last, if he be immers'd in the Domestick Cares of a Family and Children, or taken up in the Service of his Country, or plagu'd with Dignity, by advifing him to retire to the Country, the chief Anodyne and Antidote of Care. In rending fuch Patients, the Phylician must take care to deliver his Proposals and Precepts, with that Art and fearless Way of Speaking, that may dispose the Patient to Patience and Tranquility, and influence him to give a great deal of Credit to the Vertue of the Med'cines, I can scarce express what Influence the Physician's Words have upon the Patient's Life, and how much they fway the Fancy; for a Physician that has his Tongue well hung, and is Master of the Art of persuading, fastens, by the mere Force of Words, such a Vertue upon his Remedies, and raifes the Faith and Hopes of the Patient to that Pitch, that sometimes he masters difficult Diseases with the fillieft Remedies; which Physicians of greater Learning could not do with nobler Remedies, merely because they talk'd faintly, and with a soft dead Air. Hence it comes that different Phylicians do not find the same Effects of the same Remedies:

dies; for one knows admirably well how to screw up his Patient's Faith and Hopes, and another talks so faintly and ineffectually, that he never reaches his Patient's Imagination. All the World knows that Musick is of great Use in the Diseases of the Mind: Upon which Head I can't but take notice of a Passage of Alexander ab Alexandro Dier. Genial. lib. 6. cap. 5. viz. Asclepiades made use of nothing more than the Musical Harmony and Consort of Voices in curing frentical Persons, and such as were disorder'd in the Mind.

CHAP. XV.

An Exhortation to Physicians to find out and establish a Method of Cure, calculated in particular for their respective Countrymen: With some passing Hints upon the Nature of the Air of Rome, and the Cure of the Diseases in that City.

SECT. L

A S the Variety of Climates and Ways of Living, gives Rife to various Temperaments in Men; so this Variety of Temperament diversifies in some Measure the Method of Cure; without which Observation, an infinite Number of Errors would be committed in the Practice of Physick. Now, this being so obvious a Truth, I cannot but stand amaz'd, that the Physicians of respective Countries have hitherto been so negligent in investigating their Domestick Physick, or the Method of Cure, and the Med'cines that

that are peculiarly calculated for the Constitution of their Countrymen; as well as in writing the History of the Diseases they are frequently liable to. Tis strange, methinks they should take their Measures without Distinction from some general Rules, and a Method of Cure, that perhaps is proper for those Countries in which the Authors of it live; but 'tis a great Question if 'tis equally proper for all. They compile compleat Histories of the Regions of the new World, and universal Natural Histories; but the History of the Climate and Country, to which they owe their Life and their Blood, they neither know nor feek after. We are apt to be taken with foreign and exotick Things, but what's Domestick, and the Product of our Native Country, is the Object of our Contempt. One and the same Diet, and the same Course of Remedies, will not answer all Countries: for the Italians who live foberly, and in a fcorch'd Climate, must be manag'd one Way; The French another; and fo on to the Spaniards, English, Germans, and others enjoying a peculiar Constitution of Air and Way of Living. We are inform'd by Eve-witnesses, that the Suture of wounded Tendons, the Operation of the Bubonocele, the Cure of the Ulcers, call'd Chironia, Ge. fucceed well in France: And, on the other hand, we find that fuch Operations are extreme dangerous at Rome, tho' perform'd by the Hands of the best Surgeons. Semi-tertian Fevers seldom turn malignant in other Countries; and yet at Rome they are, for the most part, malignant, or rather very dangerous; which was observed in ancient Times by Galen, when he liv'd at Rome.

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ricalistics of the Colorest Control of the Colorest In ancient Times, the Crifis's of acute Diftempers were very regular and perfect; which is chiefly to be imputed to the remarkable Purity and Thinnels of the Gracian Air and adjacent East; for that being endu'd with a very nimble elastick Spring, the Motions of the vital Humours, with which the Air is intermix'd, must likewise be very ready and quick; To that the Constancy of the Natural Laws impress'd upon em, can't be fo easily disturb'd by the Opposition of any external Ambient. On the other hand, in an Air that's defil'd with warry and gross Impurities, fuch as that of the Northern Countries, and those situated near Lakes; the Humours of the humane Body being likewife tainted with Impurity, and their due Fermentations being, as twere confounded by the foul Influx of the Air, ris no wonder, that when these Humours are invaded by morbifick Particles, they can scarce ever reach a due Crisis or Despumation: For, as I faid above, the Impurities of the Air impress'd upon em, are perpetually thwarting and disturbing their regular Motions. But the Purity of the Air was not the only Caule of the happy Crifis's of the Gracians, there being a great deal contributed to that Matter, by the admirable Prudence of the Gracian Physicians, who religiously observed the Motions of Nature, looking upon it as the true Directory and Guide for them to follow, in the Cure of any Diftemper; nay, they never alter'd their Method of Cure, unless they were advis'd by some new Motions of Nature, what to do, and when, and in what manner to proceed. This was their standing Axiom ;

Axiom : That Nature is the Curer of Difeafes; and accordingly, they us'd but very few Remedies in acute Cases, least the regular Motion of the Disease, and the due Efforts of Nature, should happen to be disturb'd or oppos'd by improper Remedies. Now acute Difeases being treated thus in the beginning; 'tis no ftrange thing, that when they came to the height, they went happily off in a regular and natural Crifis; and that the Phylicians should thereupon observe that Crifis's and critical Days are not Chimera's but certain Motions common to every Disease by a Phylical Necessity, as being the means by which they compais the due Pirch of Solution and Maturation. The Gracians finding this Truth confirm'd by Experience, fet forth and establish'd the Doctrine of Crisis's, with a great deal of Learning. But now that all things are in disorder in the Republick of Physick, this Do-Arine of Crisis's is no longer reckon'd an Oracle of instructive Nature, but derided as an idle Fiction of the Gracians; which occasions so many gross Mistakes in the Cure of Fevers, of which more hereafter, Book II. of Criffs's. 4. 30 Land Tolkie States and a some of them.

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To illustrate this Matter with an Example ; I shall briefly set forth what daily Experience gives us to know concerning the Temperament of our Air, and our Method of Cure, in the City of Rome. The Air of Rome being now hemm'd in with feven Hills, is naturally moist and heavy; for we are taught by Experience, that when one walks to some Distance out from among the Houses, he manifestly perceives a fort of Heavinels and Uncouthnels of the Air. It abounds chiefly

chiefly with vitriolick and aluminous Salts, as it appears from the Plants that grow in it, the Vitriol and Alum Mines of the Country, and the Waters that wash the Roman Soil. 'Tis much infelted with unwholfome Winds that blow from the South, South-West, and South-East. Sometimes 'tis fo prodigious hot in Summer, that ris no Wonder the Dryness of the Soil and excessive Heat of the Sun occasion'd a Plague in the Confulship of L. Val. Potitus and M. Manlins, as Livy informs us, Lib. 5. From thefe, and other Reasons to be mentioned hereafter, the Inhabitants of this City are of a melancholy Temperament, a brownish (and some a palish) Colour, and a Habit of Body that's rather lean than fat. They are very liable to Diforders in the Head, and particularly to those Diseases which a heavy Air uses to produce, such as Disorders in the Lungs, malignant Fevers, Cachexies, Paleness of Countenance, Night-Mare, Confumption, and the like. Further, The Roman Air is likewise foul and unwholfeme, not in all Places indeed. but those chiefly where Houses are wanting, and the Air is flow and unmov'd; and above all, in fuch Places as lie upon the Tiberis, or like Vallies are hedg'd in by Mountains, or are expos'd to the Exhalations that rife from old ruinous Walls, Vaults, and the Rubbish of the ancient Edifices. From whence it is manifest, that the Quarter of the Circus Maximus lying between the Palentine and Aventine Hills, and all that large Field that lies between the Aventine, the Tiberin and the Ostian Gate, is downright unhealthful and pernicious. But to adjust the Matter all at once, all Places furrounded with a Frequency of Houses, standing high, with a Prospect to the North or East, and a considerable Distance from the

Places remote from many Houses, situated low, and in Vallies near to the Tiberis, and pointing to the South or West, are reckon'd less healthful; and in these very Places, which indeed is very wonderful, one Part of the Air is reckon'd in some Measure healthful, and another at a very small Distance is deem'd very pernicious.

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This Unwholesomeness of the City Air is soster'd in a great Measure by the adjacent Latium or Campania di Roma, which is furrounded with a Ridge of Mountains every Way excepting that Tract which runs out towards the Mediterranean, where it ends in a Plain. For the ancient Latium is now in a manner a Defart, and overrun with Impurities; tis openly expos'd to the South-Wind, and in feveral Parts of it, particularly about Oftia and Porto, the Air is observed to be very unhealthy, especially in the Summer time, infomuch that if any Citizen goes out and stays all Night in any of these Places, and then returns to Town, he is presently seiz'd with a malignant Fever commonly call'd the Fever from the Change of the Air; which is a peculiar Sort of Fever, and very different both in its Symptoms and Method of Cure from other Fevers that spring from other Causes; for it being accompanied with the Signs of Coagulation, we find that bliftering Plaster and alexipharmacal Med'cines are very beneficial in it; and Bleeding, on the other hand, is extreme pernicious. The Aliment that the Roman Soil affords, gives but very little Nourishment fo that it not only produces a great Quantity of

Kelements in the first Panages, but palls the very Mars of Blood, and renders it unfit for mo-cion From this Constitution of the Air and Humours, it comes to pars, that the Inhabitants of the City have no voracious Appetite; and even Porcigners, who in their own Country use to eat and drink liberally without indengering their Hearth, find, when they come to Rome, that the Keennels of their Appetite goes off by degrees, and that they he under a Necessity of laying aside their wonted Intemperance, and taking up with the cultomary Sobriery of the Town, unless they mean to run the rifque of incurable Evils. If the Inhabitants of the City dine heartily, they must eat a very slender Supper, not above feven Ounce Weight, and carefully abitain from all Meat at Night; for without that Caution they bring upon themselves remediless Crudities, and perverte Collections of Humours. Among other Things they ought to ply Exercise, especially in the Morning and at Night, those Being the Scalons in which the Concoction of the Aliment is over, and the Separation of the pure and impure Parts is almost compleated; for Experience teaches us, that if they car a hearty Dinner, and do not exercise their Body at Night. they are liable to a Heaviness of the Head, Wenriness of the Limbs, Uneasiness about the Hypochondria, Crudities, unwonted Sadness, and the like. In fine, fince the Air by reason of its innate Gravity, contribues but little to the Voeat heartily without Prejudice to their Health, mult either follow a great deal of Exercise, or take cafe to have two or three Stools a Day; for we find by Experience, that those enjoy the best MeaMeasure of Health, who are both temperate, and go readily to Stool every Day.

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more les given by themicites inforce product So far for the Preservation of Health: We come now to give a shore Account of what is particularly oblery d with reference to the Ufe of Remedies and Method of Cure in this City. The Inhabitants of Rome can't bear spirituous and very active Med cines, fuch as volatile Salts. Spirits, and in general whatever is tick or tharp The use of fuch Medicines occafions not only a painful Heaviness of the Head with great Diforders upon the Nerves, but likewife a Destention and burning Hear in the Vifcera of the Abdomen, Costineness, Wai Nevertheless, if such Remedies are call'd for by the Nature of any Diftemper, we use to avoid the foregoing Inconveniences, by qualifying them with diluting and unctious Ingredients, and fuch as check their too forward Activity of or when thus qualified they do very good Service. In a Word all spirituous Remedies, that are likewife indued with an Unctuofity, that is. your Spirituofo-aleofan are the chief Remedies we use. In this City violent Emericks are very much suspected, by reason of the grievous Symptoms they occasion; and the same Censure is pass'd upon strong Purgatives. Purgatives given in the Form of Pills, have no successful or plentiful Operation but if they be given in a liquid Form and a moderate Dose, they do a great deal of Service. They cannot operate happily (especially if they are given in Pills or Bolus) unless you exhibit, when they begin to operate N 2

ave or fix Pints of thin Broth, or some Water that passes easily; for diluting Ingredients join'd to Catharticks, not only forward the Purgation, but prevent all the Symptoms, that Purgatives given by themselves use to produce, namely, Thirst, Uneafiness and Distention in the Hypochondria, Squeamishness, subsequent Watchings, inward Heats, Oc. This Use of diluting things, is reckon'd necessary in the Prescription, not only of Purgatives, but of all other Remedies in a dry Form, and of a spirituous Mature; in order to prevent the Diforders of the Head and Nerves that frequently infue thereupon. "Tis likewife a general Observation, that in the Cure of Difeases, especially fuch a are acute and come with great Force and Acrimony, diluting, emplastick and glutinous Med'cines are much the best; such as Gelly of Harts-horn, Oil of Sweet Almonds new drawn, Emplions of the Seeds and of Almonds Syrup of Violets, the Cream and other Preparations of Barley, a Milk Diet, Bathing, Go, as allo spirituous Remedies, when temper'd with oily and diluting Correctives : And on the other hand, that volatile tharp fpirituous and aromatick Med'cines, or fuch as are very active, and over diffolving, are generally hurtful, tho given in a fmall Quantity. realized from a configuration of the form of animate to

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But to wind up the Matter in a narrow Compals; there's no fort of Remedies that affords to much Benefit to our Citizens, as Exercise and a prudent Repetition of gentle Purgatives. Twas with this View that the Learned Petro-

aius invented a purging Electuary call'd after him Alexandrinum, with which he did wonders in curing the Diseases of the Romans; and that same Author gave us, about a Century of Years ago, a noble Piece, de victu Romanorum, in which he carefully remarks the various Advantages and Difadvantages of the Air, Water and Aliment of this Climate; and then propofes feveral other very material things, relating to the Method of Cure and the Use of Remedies in the Difeases of the Romans. He afferts, from long Experience, that the Citizens of Rome. are troubled a most always with three principal Diforders, namely, a constant Heaviness of the Head, which he calls, Capiplenium, Costiveness and a Weariness of the Limbs: From all which we make a manifest Inference of the Gravity and Grossness of the Air, and the Laziness of the pall'd Humours occasion'd by too great an Accession of vitriolick and aluminous Parts. In curing Wounds and Ulcers at Rome, avoid all Ointments, for they frequently do harm; whereas good Success attends Balfamick Med'cines, vulnerary Decoctions, vulnerary Spirits, and others of that Nature, which facilitate the Cicatrization, by corroborating the injur'd Part, and restoring the lost Spring of the Fibres. Here Ulcers in the Feet are almost incurable : and even Wounds in the Feet are hard to be cur'd, especially if unguentaceous things are apply'd to 'em: But Wounds or Ulcers in the Head are easily cur'd. From these few Observations made in the Climate of Rome, Phylicians will easily perceive what Course they ought to take in finding out and establishing a Method of Cure, calculated in a particular ManManner for the Natures of their respective Countries and John Man and Manner of the min

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Years agout rioble Pieces he with Remanning I take it to be needless to infilt further upon the Necessity of a demettick medicinal Hiflory for the Thing speaks its own Proof. And undoubtedly a great many Errors commit-ted every Day with reference to the Manner of Dier, and the just Quantity and Use of Remedies, proceed only from the want of that Hiflory, notwithstanding the flender Pretences of others, who impute the Caufes of thefe Errors to remote Principles, or fuch as hold no Analogy with the produced Difeales. Experience itfelf vouches for the Power of Climates, in caufing Difeases and changing the Constitutions of Men: For, generally speaking, the Natives of fome Countries are frequently liable to fuch Discases as are seldom or never known in other Countries. Accordingly we fee the Scutty reigns in the North, and the Difeate caff d Phica in Poland; the English are Subject to the Rickets. and the English swearing Disease; the Egyptians and Swians to the Elephanniafis, and the Romans in the time of Pliny, to that wild Tetter call'd Memagra; upon the Alps the Inhabitants are fubject to a Bronchocele or Swelling under the Throat, as the Spaniards are to scrophulous Tumours in the Glandules of the Neck. On the other hand, fome Nations are feldom or never visited with some Distempers A Quartan Fever is a Rarity in Sectland, and fo is the Falling Sickness in Hungary , witness Donins, Fol. 7. de reft. falled. Urb. Which questionless

less proceeds from the specificit Complexions of fuch Climates Further, fome Nations bear certain Remedies, that perhaps kill the Inhabitants of other Countries, Your German Phyficians make great use of Emetick Remedies. and cry 'em up in all Difeases; perhaps, because they find em successful in their Country where the Winter lasts almost all the Year round, and the Natives are too liberal in gratifying their Appetite. For the fame Reason the Germans bear with Fafe the most active Chymical Medicines, high Living, Go which being tried at Rome, porfuant to the Prescriptions of the Germans, has provid pernicious; nay, not only the Germans, but the Physicians of other Countries boalf of fome general Remedies and Method of Diet, that gives great Relief to their Patients: Thus the Spaniards cry up Bleeding, the English glory in Opiats, the Dutch are always upon their Diaphoretick Med eines, and fo of the reft. And cerminly they would not recommend the Use of Such Remedies so earnestly, if they did not find them successful in curing the Diseases of their Country But if they are us'd promiseuously upon all Constitutions without examining the Nature and Qualities of respective Climates, as well as other Circumstances to be mention'd lower, itis no Wonder than they produce very different Effects in the Cure of Difeafes. Perhaps it may come to pals from this Divertity of Climates, and of Ways of Living, that the Aphorisms and folid Precepts of Hippocrates are not always verify'd, but prove doubtful and inconftant upon the Experiment. And the fame Judgment ought to be made of the Procepts and Cautions NA

of other Authors, if they should happen not to hold among our Patients: Not to mention the various and opposite Methods of Cure follow'd by Physicians, which frequently break the Constancy of such Precepts.

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Since therefore, the Air, the Course of Life. and the various Nature of Food, in divers Countries, are almost entirely the Causes of Diseases; tis incumbent upon every Physician, in those respective Countries, to disclose, by the means of repeated and aged Observation, a Method of Cure particularly proper for their Countrymen, and fuch Topicks of Remedies as are either familiar or pernicious to them: And when they read foreign Authors, not to practife their Method, before they weigh it nicely in the Ballance with their own, and find it fuitable to their own Observations. Further, I would likewise advise all Physicians when emploved in the Cure of Difeases, to examine with Diligence and Maturity, the divers Seafons and Constitutions of the Weather, and the general Diseases that reign under such Influences of the Air; for tis apparent from the Observation of Learned Men, that every particular Difease owes something to the general Influence of the Air, and calculates its Periods and Manner of invading and affecting accordingly. In fine, as the Influence of fuch Seafons is various. fo the Difeafes that rage for the time, require a various Method of Cure, according to the Do-Arine of repeated Observations. the bright of the and the form the second of the second

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tries take oute on thinks chemic year total and The chief Heads, upon which this History of every Country should run, are, the Air, the Nature of Waters, and the Situation of Places; that is, it ought to take notice of the Rivers, Lakes and Springs; of the Hills, Plains, and Mountains; of the Situation of the Place towards the East, or West, or the other Points of the Heavens; of the Animals that are chiefly bred in the Country; of the Minerals, and other Products of the Earth. It ought to give a particular Account of the Customs and the Constitutions of the Inhabitants; of the Difeafes that are most common among them, and the Method of Cure that fets them free; of their Domestick Remedies, or such as grow in their native Soil; of the various and most remarkable Influence of the Seafons, and a thoufand other things, by which the Seeds of Difeafes are nourished or stifled. The Inhabitants of cold and moist Places are subber-headed, fat and thick Lipp'd, and their Cheeks are protuberant. Some Countries produce very short Men, some tall Men, and some again produce Inhabitants with Swellings in their Throats. Some dispose their Inhabitants to a phthisick and raging Cough, as 'tis commonly observ'd in Great Britain; some to the Plague and other Diseases. Besides, this Diversity of Countries makes no small Difference in the Temper and Manners of the Inhabitants, with reference to Timorousness and Courage, Pleasure and Pain, and the other Dispositions of the Mind, so that the Dispositions of the Mind would sometimes

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feem to assume the Quality of corporeal Motion. Unless the Physicians of particular Countries take care to furnish themselves with all these Ingredients, they it scarce he able to compais a perfect Cure for the Diseases of the Natives: with which View Celfus tells us, In prefue lib. de Medi. that the Course of Physick alters according to the Nature of Places; that

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BOOK I

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HE Design of this Performance, is to show clearly the Importance of Observation in the way of Paysick; and having for that end touch'd upon some general Causes, that have retarded the Progress of our Art,

Arc, (the remaining Part of em will fall properly under the next Chapter) I now reckon it necesfary to declare in this Book my Opinion of the Increase of Practice obtain'd by the means of Hiltory. If this my Opinion is agreeable to the Measures of Truth, Jam proud of doing Mankind a Piece of Service; if not, I shall willingly fland corrected, and earnestly desire that others would do for the good of Mankind, what I was not able to perform. Now, confidering, that a great many things concur to the forming of a System of any Disease, namely, the Causes, Signs, Phanomenon's, Indications, Remedies, &c. we shall speak of all these in order, beginning with the History of the Phænomena, in which the Nature of Diseases is really fituated. To proceed more clearly in the Matter. I reckon it necessary to divide Physick into the first and second Species. By the first I understand a pure History of Diseases, obtain'd by fole Observation at the fick Man's Bed, and related by the Patients themselves. In order to compass this History, there's no Occafion for other Sciences, or the Reading of Books; for in regard it makes a Science, or Fund of Knowledge by itself, and depends upon Observation, and the Narratives of fick People, whatever Accession it receives from without must needs confound it, and render it uncertain: and from thence fprung the Errors I have fo often hinted at. Upon this Head a Physician ought to act the Part of a Witness, that barely relates without passing any Judgment, and to fet down dillinally the minutest Circumstances: For fome of em are no fooner perceived than they point to the right Method of Cure; and others

others afford such Light as facilitates on Enquiry into the Nature of more difficult things; fo that Observations may justly be divided into the Lucifera, which affords an uleful Light. and the Fructifere, which are aftended with a real and immediate Fruit. In compiling therefore this History of Diseases, we must not fly of from the Coherence of things, and give our Minds a loofe at every turn, as the Poets do: but submit our Wit to the real Appearance of things, conquer Nature by Obedience; and learn the peculiar Language in which it speaks, By the Medicina Secunda, or that Part of Phyfick which I call the Second, I understand all that falls within the Verge of Phyfick, over and above the first now explain'd. This indeed is improv'd by other Sciences, and requires the utmost Stretch of Knowledge, Method and Reason. Some may object against our Project of a certain and standing History of Diseases: that fome Diseases are the irregular Efforts of forlorn Nature, indeavouring to throw of the peccant Matter without any certain Order or Rule. But considering that an animated Body is a Complexion of animal, vital and natural Actions, laid concordantly together, and depending upon certain Principles subject to the Laws of Nature, that God has ordain'd; when these Principles, come through Violence or Error, to depart from their Natural State, what Motions they put forth to retrieve their primitive State, will be such as are regulated by Nature. This is made out by Experience, not to mention other Topicks; for we see that all Natural Things, particularly, Plants, Juices, Fruits, Oc. have fet Times of flourishing, ripening, puitles

ripening, depurating, and putrifying; we fee likewife that all Diseases, especially those of an acute Form, have a certain Standard of Increase and Declension, and that a Physician cannot change this Course and stated Period of Diseases, by the exhibiting of Medicines, without inflaming the Disease, or turning it into another that's yet more dangerous. Add to all this that we find the Observations of our Ancestors, particularly of Hippocrates, are still agreeable to Truth, which could not be without a fix'd Course and Progress of Diseases. So that who ever is against this Doctrine, and cries out that Physick is an Imposture, must needs be an Im-

postor and a Chear himself is thinking with red

For a further Muftration of this History is will be worth our while to keep to the ancient Division of Dileases into acure and chronical The Ancients call'd these Diseases acute, which are feared chiefly in the Fluids, and depending mon their boundless Ebullition run speedily thro' their Period, and unless they are prudently manag'd terminate either in Death, or in tedious incurable Diseases. By chronical Diseafes they meant fuch as proceed frequently from a Diforder in the folid Parts, or from a vicious Indigestedness and Groffness of the Fluids, fo that they either move very flowly towards a Concoction, or elfe never reach it. Now the Nature of Remedies must be diversify d according to the various State of the Blood in these Difeases. We ought not to ply every Patient promisenously, either with spirituous or with watery Remedies, as many are wont to do. In acute Distempers, a great Part of the Cure depends upon the Phylician's Patient waiting

waiting and acting with Judgment and Sagacity; and the fuch Diseases come frequently to a spontaneous Solution, either by Chance, or through the Favour of Nature, yet Physicians are not guilty of greater Errors in any Part of their Profession, than in the Cure of acute Cases. On the other hand, in chronical Diseases, retaining to the faint and decay'd Nature of the Solids and Fluids, the whole of the Cure depends upon the Skill of the Physician, and the Energy of Remedies; for neither Fortune nor Nature do much in such Cases.

But now, if any Gentleman of a nicer Tafte should be disoblig'd by the mentioning of Nature so often in this Book, and brand it for a Refuge of Ignorance, I would have him to know, that by Nature I do not understand some wife Phantome, roaming about every where, and directing all Things by its Counfel; but a certain general Complex of natural Caufes, which, tho destitute of Counsel or Delign, put forth their Effects in Pursuance of the Laws appointed by the Creator of the Universe; and that in such Order, as if they were govern'd and directed by the best concerted Counsels. I understand, if you will, the Æther from which all Motion fprings, or a Complex of effential Accidents, namely, Motion, Figure, Magnitude, Situation, and the reft, upon which all corporeal Actions depend under the Direction of the Soul: This, I fay, is that Nature I have so often Recourse to in this Treatife. or -bas which of the dino which is much more wonderful, how many things things do we owe to Chance & We all know

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Setting forth some of the principal Causes that have hitherto retarded the History of Diseases, or the Medicina Prima.

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I Intimated in the foregoing Chapter, that under the Title of Medicina Prima, I understood nothing else, but a most exact Description of the Phanomena of every Disease, which make up their due and natural History. But before I enter upon the Rules for compleating this History, 'twill not be improper to inquire by the Bye how it comes to pass, that Physicians have hitherto made little or no Progress in that Part; notwithstanding the large Volumes of Observations that are extant. In the first Place they were took off from a due Purfuit of Experience by that late Opinion of the Fallacy of the Senses, which infinuated, that an Inquisition into particular things is infinite and endless. But the Falsity of this Opinion is apparent when we consider, that all the Improvement of good Arts in this our Age, is owing only to the Senses and to Experience. Nay, which is much more wonderful, how many things do we owe to Chance? We all know that the greatest Part of Remedies, and several other things in the Physical Way came to light by

by that means. And as for the other Inventions, the Enumeration of em would be too tedious. Did not Chance bring to light the Force of Gun-powder, the Conversion of the Load-stone to the Poles, and the Use of Telefcopes? Now if Chance can do fuch mighty Fears, why should we be so scanty to the Sen-ses that proceed in an orderly and regular Methed, and tho' they fometimes err, yet fee and correct their own Errors? Another Thing that flood in the Way of Experience, was, the ancient Hatred of the rational Sect against the Empirick, which they look d upon as abject Mountebankry, unworthy of a Man of Let-ters, and indeed in fo doing they had not done amifs, had they meant by Empirick, a flupid, erratick, unrepeated Way of Experience, not fermented in the Intellect, and confequently producing nothing but erroneous Conceptions, and monstrous Opinions. But they carried the Matter too far in impeaching the Empirick Rational Sect, or the Empirick Sect become literate, invented by Method not Chance, improved and directed by the Understanding, and rais'd to the Pitch of Truth after a long Inquifition into the Effects of Diseases; which was always approved of by Men of Learning, as being confonant to Nature. In the third Place, we have made but little Progress in this fort of History, for want of a Guide either to direct us by his Example, or to light us into the Method of Experience through so many difficult and uncertain Passages, and so many Differences of Diseases. And tho' Hippocrates was the first that smell'd our this Matter, and published it in his Writings, either Phylicians have

have not observed it, or have put an unfavou-rable Gloss upon it, through their Preposlesfion and falle idols. Tis true, the rational Physicians confult Experience sometimes, but they only draw from it some general Heads, and those neither fully detected, nor maturely examin'd; and the rest they lay upon the Anvil of Thought, in order to work em into a Con-fonancy with their own Reason. The Empiricks again, tho' they always glory in Experience, never come to the right Use of it; for belides that they fet about it without Light or Method, they can't bear that Tediousness of Inquisition, that's requisite in tracing the Effects of Difeases, and deducing practical Precepts from thence. Tis no Wonder therefore that this stupid, cloudy, and erroneous Way of experimenting, has given rife to that monstrous Practice of the Empiricks. Some contented with a few Experiments, and those of a narrow obscure Extent, raise thereupon a new Philosophy, and a new Theory of Phylick; and if they meet with any thing that is not exactly confonant to their Advances, they have a strange Way of wresting it, and bringing it about to their Purpose. Such is the Philosophy of the Chymists, built upon a few Experiments taken from the Fornace, Gilbertus's Philosophy of Magnerism, Mayoro's System of the Aerous Nitre; and, in fine, an infinite Number of Practical Systems founded upon the Doctrine of Alcali's and Acids, the Triumvirst of the Humours in the first Passages, Oc.

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Many affect the Noise of Experience, but conclude upon their own Notions before they consult it, and then tye it up strangely to these Notions, and wind it about to ferve their Turn. And according as the Area of their Fancy is clean, or possess'd by Prejudice, so they judge variously of their own and others Experiments, and either darken or enervate em with their own Meditations. Some giving their Mind to Aftrology, Magick, and other fuperstitious Whims, that lie almost beyond our reach, have confounded the true Phanomena of Diseases with superstitious Traditions. Now, from all these there arose a threefold Offfpring of Errors, or three falle Systems of Phyfick, namely, the Sophistical, the Empirick, and the Superstitious.

Further; the Authors have amas'd together great and bulky Volumes of Observations, yet the first History of every Disease has been but little improved. For, 1. they observed no Method or Order in making their Observations, but acted like Men in the Dark, that grope at every thing till by Chance they light on the right Way; or like Men in a Defart, that take Counsel from a sortuitous Appearance of things; they drew their Observations in an interrupted and preposterous Way; so that its no Wonder they borrow'd from thence, and imparted to us an uncertain Twillight rather than a constant and clear Light O 2

into the Effects of Diseases. 2. These Observations are like fo many unfteady Waves of fleeting Experience, made upon three or four Cases, and not continued in a constant Order through Hundreds and Thousands of Patients, as the School of Coos did. 3. Tho many of em have Observations, yet they are so confus d and perplex d with the Forms of Theory, that the clearest sighted Physicians can't distinguish, whether tis Nature, or the Author that speaks. 4. The Practice that some follow'd was more speculative and hypothetick, than calculated to Nature's Method. From whence it's credible, that Diseases went thro their Periods, not by their natural and confant Laws, but according as they were varioufly treated in divers Courses of Practice; that is, the Progress, Exit and Symptoms of fuch Dileases were more owing to the respe-Rive Methods of Practice, than to the im-mutable and individual Nature of the Diftemper. Thus, fuch as begin the Cure of the Pleurify with Purgatives, or violent Diaphoreticks. (an unfafe and unlucky Method) ought to impute whatever Symptoms appear afterwards, rather to these Remedies, than to the genuine Nature of the Disease. We conclude therefore, that all Observations made upon Diseases irregularly cur'd, are of no Use for promoting their Natural History; for that they let forth the Case otherwise than it is in itself or ought to be. 5. The Preposession of the Mind has likewife occasion'd the Omission of many Symproms that did not exactly fuit with the Author's Hypothesis, and the arbitrary Fiction of a great many, as being necessary for their further' 03411

further Confirmation. So that a pure and exact History of Diseases, I mean such as slows from the very Nature of Things and is describ'd by the Patients themselves, is not to be met with in Books; upon the Account that the Discriptions of Diseases are for the most Part taken not from Observation and Matter of Fact, but from the Author's Brains; and that many Symptoms are ascrib'd to 'em, through the Licentiousness of Opinions, or the Negligence of Practitioners, that do not at all belong to 'em, as it appears from daily Experience: Nay, for a Proof, we need go no surther than the Hypochondriack Illness alone, of which the Galenists have forged so many monstrous Things, to save and maintain their Hypothesis of a hot Liver and a cold Stomach.

end that is educing Low : in which means it comes to pake that im Truth with which when he forth by the first by the first had a large transfer with the winds that the first that the conduction and the first transfer winds that the first transfer were Low, and

Those who reason of the History of Discases, according to the Rules and Laws of such other Sciences as they take delight in, will never illustrate the Nature of Discases by Observations; as I show'd in the first Chapter of this Book. The famous Lord Veralam, among many others, laments extreamly the Injury done to Natural History in general, and the Increase of it, by Plato's inserting his Theology in the Course of his Philosophy, or judging of Philosophical Matters by abstracted and theological Notions. And such indeed is the Case of Physick; for in the last Age Lo-

gick was so much in Vogue, that Physicians apply d its stern and severe Rules to the Hiftory and Cure of Diseases; and how far they were out in fo doing is plain from this, that after all the mighty Pains and Labour spent upon Physical Matters, they brought to Light, not new Discoveries or Hints pointing to em, but Questions out of Questions, and Fallacy out of Quibbles; and so put Physick intirely into the Hands of the Sophists. But as for Dialectick or Logick, tho 'tis usefully apply'd to such Arts and civil Affairs as are grounded upon Opinion, yet it hardly reaches the Refin dness and Subtilty of Nature, and in Natural History serves rather to confirm than to pull up Errors. Upon this Consideration, Gregorius Nyssenus breaks out to this Purpose. All the World sees that the Dialectick Quirks are equally strong on either side, either for overturning Truth or refuting Error; by which means it comes to pass, that the Truth itself, when set forth by that Art, is generally suspected, as being tainted with that Subtiley that blinds our Eyes, and misleads us from the Truth

Tho many Phylical Authors have, for the abovemention of Realons, contributed but little to the Illustration and Improvement of the History of Diseases; yet in all Ages, and particularly in the two last, there have been some, who being either Men of excellent Sense and Judgment, or bred under good Masters, or acquainted with the Truth by reading Hippocrates's Writings, have made Observations to very good Purpose, and illustrated both the abovemention'd History and Practice itself, with practical Precepts confirm'd by long Exrience.

perience. Such are Duretus, Hollerius, and facotius, Ballonius, Tozzius, Martianus, Sydenbam, Septalius, Morton, Mangetus, Valescus de Taranta Tulpius, Nicolaus Chesnau, Franciscus Rubeus of Genoua, Riverius Moreus, (an Italian Author of Fevers) Iodocus Lomius, Valschmid, and others of the like Form; whom I recommend as true Practitioners to be imitated by young Beginners.

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Containing Rules for contriving and promoting the History of Diseases, and deducing from thense Practical Applorisms.

SECT. I.

THE Physical School that flourish'd at Coos, was ever in great Reputation among all forts of Physicians: And indeed very justly. For whether you regard the Importance and Method of the Subject they treat of, or the Number of Inventions and Discoveries, you must own, that upon these Heads they went beyond all other Schools. That School brought up, among other great Men, Hippocrates, descended of the Family of the Asclepiades, being the 20th from Jupiter, the 18th from Æsculapius, and the 9th from King Chrysamis. This great Man following the Method of that School, was much given to Observation, diligent in delineating with Fidelity and Exactness the History of Diseases, and wife to a wonderful Degree in fixing pracical Precepts, confirm'd by long Use. And I am of the Opinion that he kept so close to that preceptive aphoristical and grave Method in his Writings, for no other End, but to infinufinuate tacitly to us, 'that 'tis the most proper Method both for improving and confirming Physick. But considering that the Primitive Fathers of Phylick have not plainly communicated to us the necessary Rules and Cautions for fixing such Precepts, nor left us that wide Field of Observations from whence they were took methinks they have done by us as the Architects use to do in raising Obelisks, or building great Edifices; for when they are about them they have their Ladders, Scaffolds, Ropes, and many other Inftruments of Architecture; but when the Work is finish'd they remove all thefe; from whence it comes to pass, that though Posterity admires the Magnificence of the Edifice, yet they are ignorant of the Instruments made Use of in building it. In like manner young Physicians admire and read with Veneration the Works of the divine Hippocrates, but stand amaz'd and are cover'd with Ignorance when they confider what Instruments he imploy'd in building so noble an Edifice. Now these Instruments I purpose to fet forth (as well as I can) in the enfuing Chaprers, by pointing to fuch means, as perhaps were made use of by Hippocrates, in promoting and perfecting Physick by Observations, History and Precepts. It we content swall out tooken

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In compiling the History of any Disease, four Things are chiefly necessary; First, and Acquisition of particular Observations. Secondly,

condly, the due Disposition of them. Thirdly the Maturation and Digestion of these Observations. And, Fourthly, the Deduction of Precepts and general Axioms out of the Observations thus prepard. Of each of these apart. The infinite Inquificion and Description of Particulars, is the first Basis of the Hiflory of any Difeafe; fo that a Historiographer of this Nature ought to fall first about this, and to spend many Years in acquiring a large Number of Observations. In going about this Work, he must not trouble his Head with gratifying his Reader's Palate in fine Words, nor confine himself to what is useful to Patients; but only heap together fuch a Quantity of Particulars, as is sufficient for a Deduction of Axioms, and fixing a clear and perfect natural Idea of the System of the Disease he treats of Lee his Observations be set down in a rough and unpolish'd Style, that is, in the same fort of Words that Patients use when they express their Ails: Let him set down the minurest, meanest and most nicles. Circumstances: Let him add nothing of his own, I mean, nothing that either a nimble Way of disputing, or an empty Shew of Learning may suggest; but like a faithful Scribe, he must diligently collect the Laws enacted by Nature, and deferibe 'em in the same very manner in which Nature spoke 'em. He must regulate his Conduct, as Judges do in Civil Causes, upon which the best Sentences and Judgments are pass'd, when, without regard to the Licentiousness or Eloquence of Orators, all the Stress is laid upon the Witnesses: For in like manner, the Judgments pass'd upon the Nature of Diseases, will

will then be belt, when they are taken from the evident joint Teltimonies of Experience, not alter'd by the Licentiousness of Authors, who are sway'd by Humour and Prejudice; whereas the real Teltimonies and Responses of Things, are, the sometimes obscure and perplex'd, yet always sincere and uncorrupted.

This rough and unpolish'd Way of Observations, join'd to the long Attendance that the Acquisition and taking of 'em' requires, may perhaps scare both the Reader and the Writer, and feem equally troublesome and useless to both. But be it known to 'em, that a Collection of such Observations, is like a Barn or Store-house, in which we are not to stay with Pleasure, but to step down to it now and then, when we want any thing, either for the Confiruction of Axioms, or the Cure of Difeafes. Nor has any Thing funk the Verity and Fidelity of the Medicinal Natural History more than that fatal Itch of Authors to imbellish it with new and quaint Ways of Speaking, subtile Speculations, copious Quotations out of Authors, and such other Things as are added to gratify the Reader. It is expedient therefore to manage the History and Narrative of Cases, as if Physick were but just now come into the World; for that History of Difeafes, that thines as it were through a Cloud in the modern Books, wants that Expurgation, that Sir Francis Bacon of old adjudg'd for Philosophy. I am not ignorant, says he, that there is extant a natural History, the Variety and Diligence of which renders it both grateful and curious; but if you cull out of it the Fables, Anti-SuperSuperstition, Philology, and other ornamental Appendages, which are sitter Materials for convivial Discourses, and the Entertainment of Learned Men, than for Institutions of Philosophy; If these be lopped off, the Remains of Natural History will come to little.

To perfect the first History of any Disease, twill be necessary for the Historian to mark down in his Observations, not only the smallest Accidents that fall out from Day to Day in any Disease, together with their Violence, Progress and Termination for better or for but likewise the minutest Circumstanworle: ces of Time and Place, the Season of the Year, the antecedent and concomitant Caufes, the Method of Cure, and the Remedies made use of: In a word, all Things that are either Antecedents, Concomitants, or Confesequents of the Disease. For the Omission of the very least Circumstance uses to stop or perplex the Effect of the whole Observation, and even to interrupt the true Service of the History. All Things, I say, are to be describ'd with that Diligence and Nicety, that if any doubtful or uncertain Thing falls out in the Course of an Observation, it must not be conceal'd or suppress'd, (which indeed is too common'a Fault among all the Writers of Observarions) but ought to be plainly and distinctly describ'd under a Caution or Remark. For the Truth or Falsity of Experiments, will soon be laid open by the Truth or Falfity of the Axioms. Nay, further, that the Verity and Integrity of the Observation may be yet more apparent, the very Way and Manner of observing must be set down, that so Men may be left. 184.86

lest to their Liberty in judging and examining whether that Method of Observation is to be relied on or not, and others may be excited to find our more accurate Methods. To conclude, nothing will be more conducive to the perfecting of this History, than the Abundance and Fertility of the Collection of Particulars, for by that means the Inquisition and Construction of Axioms, will be gone about in a more easy and expedit Way, than upon a barren and undigested Stock.

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After our Historian has spent a due Portion of Time in making Observations, and diligently survey'd the Nature of the Disease in hand, for feveral Years; and committed all to Writing : his next Care must be to attempt some Dispofition of the Matter, and gradually Advance his Experience, which is yet but Empirical and Stupid, to a literate Degree. For such Observations are like the Letters of the Alphabet, useless indeed in themselves; but when variously joyn'd, mutually collated and rang'd in order, they make up the true Idiom of Nature. The Disposition I speak of, confilts chiefly in forting things of greater Importance into Heads and common Places, and ranging whatever is discover'd by Observation, under a proper Title. For Example, after the Historian has made a Thouland or two Thouland Observations of the Cholick, he divides that collective Body of Observations into Diagnosticks and Prognosticks, some constant, some inconconstant; Causes of several Classes, and of several different Influences: The Seafons of the Year, and the Constitutions of the Weather that prevails most for the time; Symptoms, some constant Companions of the Disease, and others veering about and frequently disappearing; the Events, some happy, some fatal, of the Indications taken, the Success or unfavourable Issue of Remedies exhibited. These, and fuch like, must be the Articles of Inquisition, as I call 'em, and after the History is collected, whatever is of a Piece with the Things rang'd under fuch and fuch Articles, must be plac'd accordingly; that so the History being duly divided and diftinguish'd, he may make an orderly and certain Induction for the establishing of Axioms or general Precepts.

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The Method of Digestion pretends only to make an orderly and digested Body of those Particulars which formerly lay straggling and unparcell'd; to reject such Things as are false, and guard with proper Cautions any thing that's doubtful, inconstant, and common to other things that seem to resemble it. In the Diseases of the Breast, for instance, Diureticks are found to be generally the best Med'cines; rejecting withal the acid Diureticks which gall the Lungs, and six the Blood within em. The Jesuits Bark is truly an undeniable Remedy for the Cure of Intermitting Fevers; but it must not be given if you suspect an Instammation of any of the Viscera, or an inward Imposthume,

or a Debility and preternatural Disorder in any Part; for in fuch Cases it does not remove but inflames the Fever, and by throwing the whole morbifick Matter upon the affected Part produces fatal Inflammations, and at last a Gangrene. Further, the Jesuits Bark is of use in Intermitting Fevers, provided 'tis not given in the beginning while the Humours are ver enide; for fometimes it does not take off the the Fever, or if it does, a few Days after the Fever returns; nay, which is yet worfe, oftentimes the Bark thus exhibited gives rife to new Distempers, namely, Asthma's, Dropsies, Dysenteries, Rheumarisms, Suppressions of wonted Evacuations, and the like, as we learn from the repeated Experience of our modern Practitioners. The found Bezoardick is a fovereign Remedy for pacifying the violent Pains of the Parts, for it checks the Impetuofity of the raging Spirits and Salts in a Minute; but in the mean time you must take care that these Pains are not gouty, venereal, or the like, the Matter of which being thereby imprison'd, might raife greater Evils; you must likewise avoid the giving of it in the Diforders of the Nerves, and fome grievous Diseases of the Head, such as the Apoplexy, Palfy, &c. for tis unfriendly and prejudicial to the Nerves and the Brain. Now the same Method must be follow'd in tacking due Cautions to Things of greater Importance in this our History, such as the Diagnosticks; the Prognosticks, the chief Symptoms, the Causes of any kind, Oc. For an Induction run on by a fingle Enumeration, without joining due Cautions to doubtful things, and fuch as bear an Analogy to the Phanomena of

another Disease, the Mask of which they sometimes put on; or without rejecting such Particulars as are false and inconstant; such an Induction, I say, makes a lame Conclusion. On the contrary, a laudable Induction; to use my Lord Verulam's Words, is a certain Form of Demonstration that defends Sense, illuminates and perfects the Mind in a just Deduction of Conclusions, and keeps close to, and mingles in a manner with Nature.

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neur Differences, counsely, reddiffe A fufficient Stock of Particulars being thus got in, our Observator must then call up his own Judgment, and begin to think of forming some general Precepts, comprehending the Sum and Quintessence of the Art. And indeed, if Apprehension and Thought be necessary in any Case, this must be it; that like a divine Fire it may inlighten this huge and obscure Defart of Particulars, perplex'd with fuch a fallacious Similitude of Things and Signs, an Intricacy and Intanglement of Causes, and an Ambiguity of Ways. This Illumination is necessary, that fo we making a discreet Use of our Judgment, may mount upwards by Degrees, and climbing with constant Labour up the steep Ascents of morbifick Matters, one after another, may at last reach the top Heighth of Nature, where the Air is clear, and affords a true Prospect of Diseases, and from whence there leads an easy and gentle Defeent to the Method of true Practice:

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These general Precepts, the Ancients call'd Aphorifms. Now, the Aphorifms are like Road-marks, and standing Beacons, to direct us in surmounting the difficult Cares of Diseases, which in ancient Times were not meddled with, but by Men of the best Learning, worn out with Age and Practice. Men of pointed Thought in fpying the fubtilties of Differences, of Patience in doubting, Deliberation in afferting, and Prudence in making a just Difposition &c. But now-a-days, the forriest Apothecary's Boy claims a right of pronouncing Aphorifins and Semences in Physical Matters. The Physicians take up the most general Propositions from Two or Three Experiments, made, as twere, at Random, to the too too manifest Detriment of the most noble Profession, and the Disgrace of the Professors. But for the Purpose.

When our Observator has labour'd sufficiently himfelf, in the wide extended Field of Observations, and learn'd exactly an Alphabet of the Nature of Difeases, he ought not to fly presently to the most general Things in a compendious precipitant way, a way that's unpassable to Nature, and expos'd to Disputes; but must rise gradually, by winding about, in afcending and defcending, and by penetrating sufficiently into the Mass of Particulars; and when he has thus reach'd the most general Things, he must afterwards deduce from em middling Propositions and Axioms That defultory way of abstracting from Particulars, not well known, not duly examin'd, to Generals, fome Affirmative, Tome Negative, is fufficiently eremplified in the Writings of later Authors, Upon a few Observations of Inflamations and Imposthumes in the Vilcera of fome that dy'd of malie.

nant or inflamatory Fevers, Henry Screta had the Assurance to affirm that all Fevers proceed from the latent Inflamations of the Parts: And having likewise derived the Origin of Hecrick Fevers from the fame Source, he ftill prescrib'd for these (as well as the other Fevers) Diaphoreticks and Aperients of feveral Sorts, with intent to difpel the pretended latent Inflamations and Imposshumes. Now, he's in the right of it, when Hectick Fevers take Rife from fuch Caufes, but not when they fpring from Causes of a quite different Nature, viz. overfweating, a simple Gonorrhaa, the Whites in Women, over-fuckling in Nurfes, a Dyfentery, a Diarrhea, immoderate Salivation, over-watching, over-working, &c. In which Cases the Hellick is bred, not by latent Abscesses. as Screta fancies, but by too great a Confumption of the nutritions Juice; and the Method of Cure ought to be vary'd, in Pursuance of the Variety of fuch Causes. But 'tis needless to infift on further Infrances of unfeafonable Abstractions from Particulars, fince they are so obvious in our Modern Books. The Malaris VI Brad are the

To make a standing and perpetual Axiom, you must take Care it be commensurable to the Particolars from which 'tis drawn; and runs neither higher nor lower, than the Importance, Verity, and Extent of the Particulars will allow; that is, that itis neither carry'd so high, as to end in abftracted empty Notions, nor confin'd to fuch a narrow low Compais, as to rest in the Confusion and Stupidity of Particulars. Let it be like Water which rifes in the Fountain, as high as it falls upon the Descent from the Ciftern. In Abstractions of this Nature, we must take Care, above all, that the Mind be directed by Prudence to -have the Particulars always in View, and be not -left to it felf, as being apt in its own Nature to THER

foar to abfracted Things, without a mature Coufideration of the interjacent Propositions. This Rule was religiously observed by Hippocrates, in his Aphorisms, his Predictions, his Couce, and most of his other Monuments; which ought to be a Pattern to us, in the forming of new Axioms. By this Time a Day, our Profession had been well flock'd with Axioms, if they had cleav'd to the Womb of Nature in the later Ages, and fuck'd in the wholfome Milk of Observations, but being finatch'd from Nature's Lap, and bred up in the Schools of Disputes, it is no wonder we are now fo feantily provided; and that all the advances made fince the Coans, by the Arabians, and fome illiterate contentions Men among the Latins, are only the idle Jargon of Old Men, address'd to unskilful Boys, agest to gonday may in as Amen

In fine, nothing contributes more to the Truth of Axioms, than an exact and rigid Description of all, even the meanest and almost useless Symptoms of Diseases: And indeed nothing has been a greater hindrance to the Perfection and Progress of the History of Diseases, than the preposterous Study of Phylicians, in marking down and amplifying Things of a larger Extent, and neglecting obscure and mean Circumstances. Nature makes no Efforts in vain; and fometimes the least Things are the beginning or first Elements of the great one i not to mention that the least conduct us to the Knowledge of the greatest. Wind breaking downwards, is reckon'd a mean and immaterial Motion, and yet in a Dysentery, the breaking of Wind downwards, after its absence for some Time, is a fign of a speedy Recovery; In a desperate Iliack Fit, if a great deal of Wind breaks downwards with a Stink, 'tis a harbinger

of Death. This I observed upon a Man of Sixty Years of Age at Rome, in the Year 1693. If Child handles its Belly often, his a fign of Word If a thick Slime gathers upon the Teeth in Fevers, the Fever will be high, Hip. Sell. 4. oph. 53. Red nes'd Persons are of a soluble Body; Hip. Epidem. Much Sweating, without a manifest Cause in the Time of Sleep, is an Argument of over Feeding or if the Person do not eat much, it freaks that he wants Evacuations : Hip. 4. Aph. 41. A great many Things of this Nature. that appear in the Course of Cure, are over-look'd and flighted by Physicians, as being useless, and of no Importance; whereas they are in Effect as capable to give Light and Service, and afford Diagnosticks, Prognosticks, and Indications of Cure, as Circumstances of larger Extent, and greater Importance. . IIV

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tion and engineer Ban ; they distinct our HE Work we have thus cut out; is a Work of fo much Labour and Meditation, that it requires not one, or a few, but a whole Society of ... Learned Men: And for this Reason I think it neceffary, that in great Cities, which have large Hospitals, the respective Princes should fettle Colleges of Phylicians, in order to the improving of Practice by History and Observations. We see other Arts and Sciences flourish, by fuch liberal Settle-

Settlements, and 'tis convenient their Liberality should extend in like manner to Physick. Such a College of Physicians, or such a practical College as I now propole, ought to be divided into Two Bodies, one let apart for reading the Books that contain Observations, and the other for making and fetting down new Observations. As for the First, (which shall go by the Name of the Literate Society) they must have Recourse to such Authors as write, not Paradoxes, or uncommon and ftrange furprizing Stories, but the faithful and true Accounts of the Difeases that frequently happen, taking particular Notice of the Seafons of the Year, of the antecedent or occasional Causes of the Diftemper; of its Rife, Progress, and Declenfion; of the Symptoms that appear from Day to Day; of the Translation of a Symptom of one Kind, into that of another, in every Period of the Disease: What Benefit or Detriment accrues to the Patient in any Period of the Disease, from the Accession, to any new Symptom, from the Exhibition of any Remedies, from the Pursuit of fuch and fuch a Method of Cure, &c. I mean whether Health or Death issued, whether the Difeafe was thereupon prolong'd, or shorten'd; or rather, whether 'twas transferr'd from one Species, to another of a very different Nature. Let every Fellow of this Literate Society, have one Disease allotted him, for the Talk of his whole Life, which he ought to pursue after this Manner. If the Pleurify, for Initance, be his Subject, let him read all the Histories of Pleurifies related by Obfervators, and other learned Phylicians, and mark em down in a Paper Book, provided for the Purpole. After they are thus mark'd down, let him confider 'em with Attention, and then fall about the Inveltigation of the following Heads, viz. The Nature or Idea of the Difease in general, the P 3 * DiagnoDiagnosticks, and Prognosticks, the Cautions and general Precepts, the most accurate Methods of Cure, the choicest and almost specifick Remedies. the mutual Trasmutations of Symptoms and Difeases, with the measure of their Duration, the Efforts, Method and Order of Nature, in expelling the morbifick Matter. All these he must fort into their proper Classes, and range 'em under their respective general Heads, as I intimated above. By running thus through all the Hiftories of Pleurifies, he'll discover, for Example, that dry Pleurifies, without Spitting, are hard to be cur'd, and permicious: That all Spittings which do not lef-fen the Pain, are bad, but those which give Ease, are of a good Character: That Pains in the Sides in old Men are, for the most Part, Mortal, chiefly because they have not Strength to discharge the Matter: That Purging in an acute Pleurify, attended with an over-bearing Inflamation, ftops the Spitting, feeds the Inflamation, and makes way for the Phthifick and Suppuration: That in all Diseases of the Breast, especially those accompanied with Inflamations, Purgatives are generally hurtful, and on the other Hand, Diureticks, expectorating Medicines, and the bathing of the Feet, give Relief: That repeated Bleeding, follow'd by feveral Draughts of a pectoral Decoction, taken down as hot as it can be bore, will quickly take off the most obstinate, and in a manner strangling Pleurisies: That a Looseness in a Pleurify is generally fatal: That the pleuritick Pain rifes, for the most Part, to the Throat, Breaft, Back, &c. That Persons much subject to Pleurifies, dye oftentimes of a Pleurify, or of a Peripueumonia: That the fooner the Spitting comes, the fooner the Pleurify's cur'd: That in a malignant Pleurify, the fafest way is not to Bleed: That cold Drink kills many Pleuritick Patients, though though at the same Time Physicians ascribe their Death to other Occasions. These, and an Infinity of other Politions, will our Historian gather from fuch Histories; which, though they lye straggling and undigested, yet they contain something that relishes of the natural Oar, and answers nicely to its Laws.

I mention and recommend this Method of illustrating and amplifying the History of Diseases, by Observations cull'd out of Books, lest such a quantity of Ware taken from Nature's Shop should lye more or less bury d, in Proportion to the Solidity or Levity of those Authors, and for fear the elaborate Performances of Men of the best Learning, should be doom'd to perpetual Oblivion. Besides, one Man is not sufficient for illustrating the whole Province of one Disease fo that we lye under a Necessity of taking in Materials from all Hands. This Galen hints at; Cap. 9. de Subfigur. Emp. Since, fays he, the Life of one Man is not sufficient for the Invention of all Things, History collects the Observations of aged Time, that by the Instruction of many Men in Several Ages, one Man may become very Learned,

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The other Body of this College, to which we shall give the Name of the Practical Society, must be entirely taken up in finding out, and marking down new Observations of Diseases, and pursue the same Measures in that Office, that we laid down above, for the Literate Society in theirs. That is to fay, every Member of the Society must take a particular Disease for his Province. I have shewn at large in the foregoing Chapter, how the History of Diseases is to be made, by Observations taken at the Patient's Bed-side; and in what manner manner Aphorisms and general Precepts are to be deduc'd from thence. But to fet the Matter in a clearer Light, I shall here recapitulate what I purfued there at more Length. In regard the History of Diseases confists in their Symptoms and Phanomena for the Time, an Historian ought to difplay his utmost Efforts, in setting forth the very east and meanest of em, just as they are in themfelves, or are related by the Sick Person. How far Authors have hitherto been faulty upon this Head, is evident from their Writings; for in treating of any Disease, they consulted Books, and their own Fancy, without any regard to Experience and the Book of Nature; from whence it comes to pals, that the Symptoms they afcrib'd to Diseases, are either not met with in Practice, or found to be of a quite different Form from what they are represented to be. In the Second Place, our Historian ought to enquire, and after long Enquiry, determine what Symptoms are conftant, and, as twere, the perpetual Diagnosticks of the Disease allotted him; and these he must distinguish from the other fortuitous and common Symptoms, and such as retain rather to a different Method of Cure, and an almost infinite Combination of Causes, than to the Nature of the Disease, 2. He ought to remark the Nature, Violence, Progress and Issue of the Symptoms, and take Notice what Transmutations of Symptoms happen thro all the Periods of the Disease. 4. He ought to observe the Temper, the Degree of Violence, the Progress and the Exit of the Distemper it felf, and its Change for better or worfe, upon the arrival or retreat of any Symptom. 5. He ought to mind what Symptoms disappear, or what Increase upon the Exhibition of any Remedy, or the using any Method of Cure in every Period of the Difcafe. The same Remark is to be made upon

the principal Disease, after the Exhibition of Remedies, or applying a Method of Cure. 6, He must fet down what Symptoms accompany the Difease to the last, with the Degree of their Violence in every Period, what Symptoms take leave of it in a fhort Time, and when , and what Alterations are made in the Disease, upon their disappearing or returning. 7. He ought to carry the Inquilition of all these Things, through Hundreds and Thousands of Patients; that so he may rest altogether affur'd of the Truth of the Matter, and readily form general Axioms; and the Art of Phylick, like a lively and thriving Plant, flanding upon its own Roots, may grow, and be confirm'd. At the same Time that our Historian is employ'd in marking down the Phanomena of Difeases, he ought likewise to bend his Thoughts. upon the giving of separate and particular Histories of the Caufes, Diagnofticks, folid Indications, or Method of Cure, specifick Remedies, and fuch other Things as relate to the Effence of the Difease, of which more anon. Now, these ought to be the chief Topicks or Articles of Inquifition in the new Performances, calculated for amplifying the Hiftory of Difeafes, by a diffinct Account of their Phanomena, and the other Particulars above-mention'd. 'Tis needless to repeat how lazy the Physicians, especially of this Age, have been in that Matter. Methinks the ancient Fable of Scylla would fuit well with their Systems of Physick; for the Ancients feign'd that Scylla had the Countenance and Breast of a handsome Virgin, but barking Monsters about her Belly. And in like manner, many of our Modern Systems look plaufible and specious, nay, and promise great Things upon the first View, and the outward Appearance; but when you come to their Womb, or their Parts of Generation, they neither

218 The Practice of Phylick

bring forth the Fruit of Practice, nor afford new Light for the finding of that Fruit, but cram us with noify inarling Questions, with horrid Monsters of Opinions, and the nauseous Repetition of former Inventions. In a word, Experience must be our Rule. Experience gave Being to our Art; and Example, led the way, according to Manileys, In the way of Phylick, Experience is of more Weight than Reason; and Reason, on the other Hand, has more Weight than Authority: So that the Case of Physick is different from that of Civil Affairs, in which the Authority and Acts of the Senate are more regarded, than the greatest Weight of Reason, ing upon its own Reot merey

Before I difmiss this Subject, it will be proper to fubjoin a few Hints of the Laws of this College: And these I would not have to be much different from those of other learned Societies. especially as to the general Statutes. As for the particular Rules, let this one be minded above all, that every Fellow of the literate, as well as the practical Society, should have but one Disease allotted him for the whole Course of his Life; for fuch is the Importance and Necessity of the Subject, that it cannot well be otherwise. For confidering that a long process of Time is spent in collecting a Store-house of Particulars, and dispofing and digesting it in the above-mention'd Manner; and that a large Stock of Meditation, Sedulity, Judgment, and Patience, is requir'd in going about it; 'tis evident, that the Life of one Man is scarce sufficient for the perfect Illustration of one Difeafe. So that if one were to undertake the Discussion of several Diseases, the narrowness of his Time can't but oblige him to be guilty of the Icandalous Crime of making precarious Build

and useless Transcripts out of other Authors, of inventing several Things at Pleasure, of heaping up bulky Volumes, that make an offentative Show, but do not improve the Art; the Tire-someness of the tedious Inquisition, would make him slip into the Errors I have so often censur d in our Ancestors. For this Reason, I think the Egyptions did well, in allotting to every Physician

the Cure of one particular Difeafe.

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The Fellows of this College are to meet at let Times, at least once a Month; and are to lay their Observations before the Censors. Now the Censors ought to be the Senior and more Learned Fellows, qualify'd with a mature Judgment, and aged Practice. They must be empower'd to correct, whatever is contrary to the Laws and Method of the History. As for the other Particulars, relating to the Splendor and Dignity of the College and of Practice, let these be adjusted by the Learned Fellows, that meet from Time to Time.

CHAP. V.

Containing a Solution of the Arguments that may be offer'd to the contrary.

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A Mong the many Objections that may be offer'd in Opposition to this our History of Diseases, this is the chief: Diseases are certain confus'd, unsteddy, and disorderly Effects and Motions of forlorn Nature, when puzzled how to defend it self; so that 'tis a vain Labour, to pretend

to make a regular and flanding History of 'em. The Argument founds well, indeed, but it does not fland to Experience: For we fee that Hippocrates has purfu'd that Enterprize, to his infinite Glory and why may not others make the same Essay Besides, daily Experience is Evidence, that Diseases observe an equal and individual Constancy in their Motions and Periods, and keep to certain Rules in their Progress and Maturation: That as all these Things take Rife from a specifick and peculiar Exaltation, or Specification (if I may fo fpeak) of the peccant Humour, fo fuch Specifications must have certain and individual ways of Invasion and Maturation, with concomitant Symptoms, that are altogether different from the ways of Invalion and Maturation, and the concomitant humoral Exaltations in other Diseases. And these Specificatious of the Humours in some Diseases are so constant, that let the Disease be seated where it will, and affinne what Face it will, 'tis always manifested, by certain inseparable Characters, peculiar to its Specification. To illustrate the Matter with an Example,

11.

That Specification, or peculiar Nature of the Humours, that produces a Tertian Intermitting Fever, differs vaftly from the Specifick Quality of Humours, that gives Rife to Hysterick Fits, the Pox, and the other Diseases. By virtue of the Morbifick Specification of the Tertian Humour, a Tertian Fever is known to observe the following Course, both in Ancient and Modern Times. It begins with a Shivering and Vomiting, and burns with a biting Heat: The particular Fit is over in the Space of Twelve Hours; and the entire Body of the Disease disappears after Seven Rounds, provided the Physician is not out in his Method. Purgation

The

gation and Bleeding is prejudicial in the Beginning. The particular Fits terminate, for the most brifugous Medicines, till after the Fourteenth Day The Urine is very red and brick-colour'd, (that particular Colour being an almost Pathognomonick Sign of this, and the other intermitting Fevers) and fo on. Now that I am speaking of this Urine. I must observe by the bye, what repeated Observation has taught me, that the Diseases accompanied with that Urine, proceed (if not all at least most of 'em) from the specifick Source of intermitting Fevers. In Confirmation of this Remark, I have oftentimes experienc'd, that form Periodick Pains, and other Difeases, exasperated at let Times, were accompanied with a very highcolour'd, or brick-colour'd Urine, as if they had been the Offspring of Periodick Fevers; and were happily cur'd, after a fruitless Trial of other Remedies, by attenuating, bitter, and antifebrile Medicines, prudently administer'd; that is, feafonably, and in Conjunction with diuretick or purgative Ingredients, as we are wont to do in intermitting Fevers. What we have faid of the Specification of a Tertian Humour, may be anply'd to all other Diseases. The Hysterical Ill. ness (for instance) is produc'd by a specifick peculiar Exaltation of the Humours, and according ly is cur'd by fuch Remedies as are calculated for it in a peculiar manner. It invades the Patient with Symptoms, that retain offner to it than to any other Disease; namely, a Sense of strangling Passions of the Heart, an Oppression of the Senles; Convultive Motions, both of the Abdomen. and the other Parts of the Body; a Sense of Cold in the Crown of the Head, Ythe greatest Diagnofield of Hysterick Cases) and a Chillness in the tream Parts, and motherale Coult me shows

The above-mention'd Symptoms appear, when the hysterick Humour ranges here and there, and is not yet fettled; but if it happens to fix in any one Part, it produces Diseases and Symptoms peculiar to that Part. Thus, if it fixes in the Head it assumes the Form of an Apoplexy, or a Headsich, or other Diforders of the Head; if it feizes the Nervous System, it appears in Convulsive Motions: If it fixes in the Heart, Palpitations and Anguith enfue; if in the Lungs, a Cough, Althma, and the like, are the Confequence : If the Gut Colon is affected, it refembles a most obstinate Cholick : if the Kidneys or Loins are the Seat of its Refidence, it humours nephritick Pains exactly; if the Bladder, you have a Suppression of Urine , if the Ventricle or Intestines, it produces a Vomiting and Loofeness; and fo on. So that if a Physician be not very sharp sighted, and well vers'd in his Bufiness, if he is not aware that the Specifick Cause of one Disease oftentimes personates that of another that's quite different , hell take the foregoing Difeafes to proceed from Caufes peculiar to themselves, or to the Part affected. and will labour in vain in the Prescription of vulgar Remedies, to the great Detriment of the Patient; whereas, in Effect, they depend immediately upon the hysterick Spring, and, after a fruitless Use of other Remedies, are cur'd in a Minute. with nothing but Antihystericks. The same may be faid of the Pox, and fuch other Capital Difeases, of which more at large in the Chapter of Canfes with in oliginating the state of the

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Further Diseases are so constant and orderly in their Motions, that they observe a regular Course, not only in the Invasion and Progress but likewise in the Declension and Exit. Accordingly, dingly, we fee fome Morbifick Canfes perform their Maturation and Depuration in the Space of a few Hours, others in fo many Days, others in a determin'd Number of Months, and others again in fo many Years: And fometimes, when Nature is frong they terminate of their own accord. without the Affiltance of Physick. Not only Hippocrates, but Experience is Evidence, that an exquisite Tertian, if left to it felf, will terminate in Fourteen Days for fo much Time does the Specification of the Tertian Humour require to compass a Depuration and prescribe what Remedies you will, to extirpate a Tertian before that fet Time, they are all ineffectual. As for the Objection, that a Tertian may be stiff'd in the Bud by the Use of the Febrifuge : I own that fometimes it happens fo; but then, the Difease either breaks out again with greater Fury, after a few Days, or puts into its Place feveral grievous Diftempers, fuch as Afthma's, Dropfies, flow Fevers. Phthisicks, &c. But of this more anon. For the same Reason, Purgation and Bleeding is pernicious in the Beginning of intermitting Fevers; for daily Experience is Witness, that upon the Use of these Remedies, the Fever is either duplica-ted, or inflam'd. Tis true, it falls out very often, that exquisite Tertians go beyond Fourteen Days, and extend even to Months; that a Pleurify lasts after the Seventh, or Fourteenth Day, and fo of the rest; but that must be attributed either to a contrary Method of Cure, namely, when we disturb the Course of Nature, and the gradual Separation of the peccant Humour, by Bleeding, and exhibiting Purgatives and violent Diaphoreticks in the Beginning, in which Cafe, the Specification of the Tertian Humour is funk. and a new Specification arises, with a new Train of Symptoms, and a new Viciflitude of Periods, which which lasts till the Separation of the impure Hamour is performed by the set Laws of Nature, or till we light on a Remedy that directly extinguishes that Species, upon which Head the Doctrine of Specifick Remedies is grounded: It must be imputed, I say, either to this irregular Method of Cure, or to new and predominant Constitutions of the Air, or to some staming Irregularity in the Conduct of Life, or else to other violent Causes, that are able to disturb the regular Motion and Specification of the Tertian Humour, and pur it by the due Term of Maturation.

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the Objection, that a Terrian may be fould in What is faid of the Tertian Fevers, must be apply'd to all other Diseases, particularly those of an acute Form, in which the abovemention d Maturation, and Separation of the peccant Humours, are more manifelt, than in others that approach to the Chronical Class. In the Bufiness of Maturation, the Conduct of Nature is much the fame, as in the Production and Maturation of Plants, Animals, and other Things; for in both these Offices, it moves in a certain, constant, and immutable Order unless it be put out of its Byafs by violent Caufes, which, by that means, give Rife to Monsters, and abortive Productions. And as Animals, Plants, &c. undergo their fpecifick and peculiar Mutations in a constant Order : as they grow and flourish, some in May some in July, and fo on ; as they bring forth Seed in regular Order, and at last fade away ; so Diseases, by virtue of the specifick and peculiar Exaltation of the Humours, do, all of 'em, observe their respective Periods, and carry along with them their peculiar Symptoms. Thus, the Pleuthe

the Dropfy, and other Diferies, are attended by their peculiar Symptoms, pursuant to the Observations not only of our Age, but of the carlieft. Times of Antiquity. We must not therefore despair of obtaining an exact and standing History of Diferies, by reason of the foregoing Objection a for tis fairly prov'd, that Nature, in all her Concerns, proceeds in a grave, constant, and perpetual Order .. And if, by the Violence of Caufes, it be jostled out of its Road, it flies out into Monfters, abortive Productions, and manifelt Errors , but these happen but seldom, bee moderal among the Greinns, Hipmanding Caffee And-

arms, Mind is recus a and Culen, provided he se kent clear of the frience of Speculation a Armen It may be further objected, that 'twill be a hard Matter to compais this Hiftory, both by reafon of an infinite Number of Causes and Circumflances that concur to the Production of Diseases, and upon the Account of the various Methods with which they are curd. As for the Caufes and concurring Circumstances, they will not be always fo confus'd and irregular, but that after long Observation, we may trace the true Motions, Progress and Exit of Diseases: For had such a Confusion of Causes prevail'd in all Cases, Hippocrates his Aphorifms, Predictions, Coaca, &c. could never have been form'd. As to the Second Obstacle; namely, the various Methods of Cure 'tis certain, that by virtue of Method, Diseases affirme various Faces, and call up various Symptoms; but then these are secondary and accessory Symptoms, and common to other Difeafes, but not the fix'd and characteristical Symptoms , or if they are, it happens but very feldom. For take what Method you will, in the Cure of a Pleurify for infrance, you will scarce put aside the pricking Pain in the Side, the Difficulty of BreathBreathing, the hard Pulle, the Cough, and the other Characterifficks of a Pleanify, or, if you knock off fome of em, afferedly you'll never fink em. all. But to prevent Millakes in the way of Method, and the going upon falle Indications, fo as to turn Difeales to another Courfe, than what they really and naturally require; I recommend to you the reading of fuch Authors, who having dwelt perpetually with Nature, and trac'd the Complexion and Cure of Diseases with more Diligence than Noise, have laid down a folid, unshaken, and perpetual Method of Cure : Such are, among the Grecians, Hippocrates, Calius Aureliamus, Atius, Aretaus; and Galen, provided he be kept clear of the Fumes of Speculation: Among the Latins. Celfus, and the other Authors mention'd above, Cap. 2. So that, upon the whole, this Objection ought not to fcare us from attempting the proposed Hiftory of Difeafes. The tarte usen the Aranini of the various alethods

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authorics, they will not be I conclude with this Imendo, That the Diffection of the Corple of those who die of Diseases, affords great Light for discovering the occult, Causes of Diseases, as well as perfecting and amplifying the History now proposid. But thefe Corpfe are not to be diffected transiently, and in a Hurry as many are wont to do. Before you commence the Diffection, you ought to take a Description of the Disease of which he dy'd, marking down the occasional Cause of the Di-Remper, the Train of Symptoms, with their Progress and Uplhot; the Motions of the Disease. the attempted Method of Cure, the Operation of the Remedies, and the other Particulars mention'd in the foregoing Paragraphs. When thefe are once learn'd, you are then to go about the Diffection, and enquire into the Seat and Cause of the Difeafe, that is, whether the Fluids or Solids were faulty in producing the Distemper, where the morbifick Matter sculk'd, and what Complexion twas of, what degree of Injury the Solid Parts have fultain'd, whether they are flaggy or bent, obstructed or open, affected with Convulsions, or otherwise; whether their Disorder is communicated to other remoter Parts, and the like. It must be own'd that feveral chronical and obscure Difeafes, can scarce be fet in a clear Light without Diffection; and the History of fuch Cases will never be perfect and entire, unless the Particulars I mention'd but now, be mark'd down before the Diffection: For to diffect Corpfe transiently, without a previous Knowledge of the History of the Disease, is of no manner of Use for illustrating either the Ætiology or Pathology of Diseases. But of this more at large in our Treatife, De fibra motice & marbosa. that happens very follows

CHAP. VI.

Herentage Contagion, to intelnocrate and

A Specimen of the History of Diseases, containing a Description of the Gout, and its practical Aphorisms.

SECT. I.

THE foregoing Advances, relating to the manner of forming the first History of Difeales, and deducing practical Aphorisms from thence, can't be set in a clearer Light, than by giving some Historical Specimen of one certain Disease, as a Pattern for all the rest; and in regard

gard it is a common Complaint, that the Gout kills more of the Rich and Wife, than of the Poor and Simple, we shall make a short Essay upon that Disease, and freely communicate what Obfervation has taught us upon that Head, being countenanced in this Undertaking, by the excellent Dr. Sydenbam, whole Method we follow:

he own'd that fereral chronical and offcure Dif-

the Gout is a painful Difforder of the Joints, that attacks chiefly old Perfons, who after spending the better Part of their Life in Softness and Effeminacy, and giving themselves up to Idleness, Surfeiting, Venery, and an indiscreet Use of Wine and spirituous Liquors, discontinue their wonted Exercise, as their Years advance, and lead a lazy unactive Life. Sometimes it feizes upon young Men, and those of a thin flender Constitution, but that happens very feldom, and is owing chiefly to Hereditary Contagion, to intemperate and early Venery, to the discontinuing of wonted Exercise, to over-eating, to an indifcreet Use of Wine, or other spirituous Liquors, follow'd all on a sudden by refrigerating and moistning Drinks, to the spoiling of the first Concoction by severe Study, or by Care and Fretfulness. Those who are sub-ject to the Gout, have large Sculls, with a salacious and robust Constitution, and a habit of Body, that, for the most Part, is full and moist. It is not fo fevere upon old Men, as upon those of a middling or younger Age. Children, Eunuchs and Women, are foldom or never feiz'd with the Gout. Commonly a general Paroxism returns about the Equinoxes and Solftices, and above all, about the beginning of February or March. Errors of Diet, the Passions of the Mind, and violent Caufes, will call up a latent Fit; and as this

Fit appears suddenly, without any previous Signs to usher it in, so it is quickly over, especially upon the Removal of the above mention'd Causes. Some Weeks or Days before the Invasion of the general Paroxism, the Patient is seiz'd gradually with want of Concoction and Crudity in the Stomach, a Heaviness and windy fort of Intumescence all over the Body; all which increase every Day, 'till the Fit appears.

protuberance of the adjutht being belieful all

he substituted the Principles (Vinc. 181, cur best of Now the Paroxism proceeds in the following Order. A few Days before the Invasion, a fort of Drowfiness, and a descent of Wind, with a fort of spasmodick Disorder, is felt in the Muscles of the Thighs. The Day before the Accession, the Appetite is voracious in a preternatural Way. Though the Patient goes well and found to Bed. yet about Midnight he's awak'd by a Pain, that's feated for the most Part in the great Toe, and fometimes in the Heel, Ankle, or Calf of the Legs Soon after, a thivering, thaking, and feverish Symptoms appear, and undergo a gradual Remission, but the Pain increases gradually, 'till it reaches the highest Degree of Violence, about Sun rife, and variously affects the little Bones of the Tarfus and Metatarfus, with a Senfe, as twere of a Dog gnawing, fometimes of a Preffure and fourezing, and fometimes of the tearing and dilaceration of the Ligaments. The Pain that the Patient feels upon his first waking, refembles that which issues upon the disjointing of these Bones, with a Senfe, as 'twere, of cold Water thrown upon the Part affected. The Part affected is fo very fensible of Pain, that it can't bear the very Weight of the Sheets, or walking flowly through the Room, the whole Night continues Reftless; mitted

the Body and affected Part, are constantly tos'd up and down the Bed, through the Impatience of Pain, which begins to abate about an Hour or Two after Sun rife, fooner or later, according to the Quantity and Groffness of the peccant Matter: At which Time the Patient falling into a gentle Sweat, drops afleen, and when he wakes, finds a Swelling upon the Part, and the Pain abated. Before the Accession of the Fit, there's no great Swelling upon the Part, but only a protuberancy of the adjacent Veins, by which all the assaults of the Fit are usher'd in; for this is a characteristick Sign, as 'twere, of the approaching Paroxism, as any one may observe.

For the Two or Three Days next enfuing, the Pain is very violent, especially towards the Evening, and abates a little after Midnight; but if the Gouty Matter is very copious, the Pain continues for feveral Days. A few Days after that, the other Foot is seiz'd with the same Pain, and that to a degree of Violence and Duration, proportional to that in the first. Thus do the Feet nie to be affected successively one after another; but if the peccant Matter be very copious, both Feet are feiz d at once, and that with equal Violence. The first Fits of the Gout use to answer to one another, both in Duration, and manner of Invafion; but after the Gout has feiz'd with Violence upon both the Feet, the enfuing Paroxisms obferve no mutual Proportion. However, this is always observable, that they grow higher in the Night-time, and abate in the Morning. In the Gout, we have an univerfal Paroxism, and particular Paroxisms that make up the Universal. The particular ones return every Day (as I intimated

mated above.) towards the Evening, and after trying the Sick Man's Patience all Night, begin gradually to abate towards the Morning. In these particular Fits, I have fometimes observ'd, that the posterior are at once milder and shorter, than thole which came first and continue thus to grow gentler and gentler, 'till the Gouty Matter is con-fum'd, and the Patient restor'd to perfect Health, The Period of the feveral Paroxisms varies, purfuant to the variety of Ages, Constitutions, external concurring Causes, and the like. But often-times it takes the following Course. If it attacks a Man in the Flower of his Age, and one that's feldom subject to the Gout, it spends it self in Fourteen Days; but when it seizes upon old Men, and those who are often Gouty, it continues for Two Months. When it falls upon those who are almost worn out with Age, or a long Continuance of the Gout, it feldom parts with em 'till near Midsummer.

V.

The Urine of Gouty Persons is high colour'd for the first Fourteen Days, and drops a Red Sand, like Sediment; nay, the Patient does not void by Urine above a Third Part of the Liquids he takes in, the rest being kept in the Body. The Belly in like manner is Costive in the Beginning, and the Appetite slat. Towards Evening, a Shivering over-runs the whole Body, and during the Paroxism, every Joint almost is affected with a Heaviness and Uneasiness. When the Paroxism retires, the affected Part is seiz'd with a violent Itching, in the form of a Scurf, which salls off, as if the Foot were scal'd. When the Disease is over, Appetite, Sleep, a due Laxity, and the other Marks of persect Health, return by Degrees.

trying the Sick Name Patience all Night, bearing Such is the Progress of the Gout, when it obferves a regular Courfe. But oftentimes it hap-pens, either through an improper Method of Cure, or by reason of the obstinate Continuance of the Diffemper, which transforms, as twere, the Substance of the Body into the Disease; it happens, I fay, that this regular Progress of the Gout, and its Symptoms, is almost perverted, and the Gout is vaftly different from it felf, both as to its Symptoms, and the manner of Invasion, and Nature is not able to throw it off after the wonted Manner. If the Gout leaves the Feet, which are the chief Residence of the Gouty Matter, or attacks other Parts as well as them, 'tis a Sign, either that an erroneous Method of Cure has been followed, or that the vigor of the Body is decay'd, while the fource of the Gout is confiderably reinforc'd, in which Case it invades likewise the other Parts; namely, the Hands, Elbows, Knees, and the other Parts of the Body, both Internal and External. In proceeding thus irregularly, it throws its Matter upon the Fingers, and gradually fwells em up, and after it has sufficiently fill'd their Joints, then the Fingers are weath'd like a Parship, and begin to lose their Motion, and at last hard stony Concretions appear in the outer Surface of the Joints, which in process of Time, do by their Acrimony eat through the Skin, and Cuticle of

the Joints, and at last appear in the form of Chalky Concretions, or round Balls of Hartshorn. Nor does it only infest the Joints of the Fingers, but even that of the Elbow, upon which it uses

to raise a whitish Tumor, to the Bigness of a Hen-Egg, which is frequently inflam'd, or very Red.

When it falls upon the Articulation of the Thigh,

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it causes such an uneasy Sensation, as if a huge Weight were hung upon the Thigh, but without violent Pain; but when it descends from thence to the Knee, it carries along with it a most dismal Pain, and almost takes away the Motion of the Joint, so that the Patients lie unmoveable, as if they were nail'd down; or if they offer to move, they undergo an unspeakable Torture, with a disquieting Uneasiness all over the Body, that's familiar to this Disease beyond others.

netted a sure all callet, n'y Appetite is in four and others I at are af-

If a regular Podagra, that appears towards the end of Winter, and finishes the general Paroxism in Two or Three Months; this Podagra, I fay, if it assumes an irregular Course, and takes deep Root in the Body, it afflicts the Patient for the whole Year, abating for Two or Three Months in Summer, and the particular Fits do not observe a natural Succession or Termination, in the space of Twenty Four Hours, as before; but make a Period of Fourteen Days, more or less, during which Time they torture the Part afflicted to a miserable and constant Degree, especially if the Feet or the Knees are affected. In this long Duration of the Paroxisins, the Joints begin to be contracted, and grow unfit for Motion, and though the Patient makes a shift to walk through the Room with a Stick, or People to Support him, yet he does it with great Pain and Difficulty, When the Disease is at this Pass, it oftentimes so falls out, that the Patient having made his Feet firm and ftronger, by thus walking up and down the Room, so that they are not so ready to receive the Gouty Defluxion; the Gouty Matter that us'd to repair to the Feet, not being sufficiently evacuated by other Passages, recoils to the internal Viscera.

Viscera, and there frequently produces mortal Stagnations. In the mean Time, the Patient is subject to divers Symptoms, which, like the living Off-spring of a long continued Gont, is always hanging upon his Shoulders; namely, Pain or Swelling of the Hamorrhoids, a wearinels in the Limbs, great Inappetency for the first Days of the particular Fit, and the Crudities thereafter, with a nidorous Belching, and the Food, as 'twere, putrify'd in the Stomach, especially if he has eat heartily, or fed upon Meat that is not eafily digested; but all along the Appetite is in some Measure flat, the Back, and other Parts, are affected with a troublesome Itching, especially at Night: The Urine that formerly was fcanty, and high colour'd, is in this State of the Disease, difcolour'd, and copious; nay, both in Colour and Quantity, it refembles that voided in a Diabetes.

VIII.

When the Disease is at the aforesaid Pass, the Patient waking out of his Sleep in the Morning, has a Sense of a violent Compression, and squeezing of the Ligaments of the Bones of the Metatrius. Sometimes when he's asseep, he wakes all on a sudden with a yelling, through a sense of Pain, as if the Metatrius were broke with a Club. In the mean Time, the Tendons of the Muscles that support the Legs, are seiz'd with a violent and painful Cramp, that surpasses all Patience. When the Disease has gone to the greatest Heighth of Duration and Violence, and the Patient grows old, the ensuing Paroxisms are not so painful and insufferable; partly, because Nature is not able to throw out the Morbisck Matter upon the Joints, so that it tarries in the Viscera; and partly upon the account that the continued Definition

of Matter has render'd the fleshy and membranaceous Fibres of the affected Part, almost insensible and obstructed. For this Reason, the room of the Pain is supply'd with a lassitude of the Limbs, a pain in the Belly, and sometimes a Diarrhea and when these Symptoms appear, the Pains of the Joints are mitigated; but when the Symptoms retire the Pains revive, and attack fometimes one, and fometimes another Part, fatiguing the Patience of the Sick Man, without respite; so that it may be call'd a Paroxism, not only of the Gout, but of Anger, Sorrow, Fear, and other grievous Paffions of the Mind; for the long Sickness does so enervate the Mind, that the least Motion disorders it, and makes it fink almost into Despondency. The above-mention'd mutual commutation of the Articular Pains, and the Diforders of the Abdomen, is familiar with other Distempers besides the Gout, as I've intimated frequently above; fo that the Diforders of the Joints are happily redress'd by such Medicines as move the Belly; and the Diseases of the Belly are succefsfully cur'd, with the Remedies that throw the Humours out to the Skin; fuch being the Means pointed out by Nature her felf. I have oftentimes observ'd, that when the Gouty Matter vanishes or retires all on a fudden, the Patient is feiz'd with violent Pains in the Stomach, and bilious Vomitings, and after that with the Jaundice. which is fpeedily dispell'd with Three or Four Doses of Rhubarb. When the Gout makes the first Invasion, it creates grievous Pains, but as the Patient's Years advance, and the Disease grows old, the Pains become gentler, though at the fame Time their room is supply'd with that nus merous Retinue of Evils that I mention'd but now. Though the Pains are very violent in the first Years of its standing, yet some Amends is made

made for that Violence, by the long Intermission of the Paroxillus, and the recovery of perfect Health, which does not take Place when the Difeafe is grown in Years, and the Patient bends under Old Age. At last the Gouty Person is seiz'd with the Stone in the Kidneys, and voids great quantities of Sand by Urine, whether it be that lying upon the Back, or the diforderly Secretions of the Viscera, and other Parts, or an analogy of the Gouty Matter, with that of the Stone, have given Rife to that Disease. In this Case, the Gout and the Stone fucceed one another by Turns. and by a vicifitude of Paroxisms, make a perpetual Fund of Pain and Anxiety to the Patient. But fometimes the Gout produces not only the Stone and Sand, but likewife other Diforders of the Bladder, particularly a Suppression of Urine. a Difficulty of Urine, an itching of the Scrotum! a pilling of Blood, and the like: And if the Gouty Matter be very copious, it causes a long Inappetency, a pale Countenance, swellings of the Feeet, a tough Slime upon the Tongue, with a bitter, and fometimes a falt Tafte, and many other Symptoms, in proportion to the diversity of the Parts, and the Patient's Indiffretion in using the Six not-natural Things, and regulating the Conduct of Life out mobile and he saider to

with violent Pains in :XI Stothach, and bilious

Twould be too tedious a Task for this Place, to run over that long winded Series of Symptoms observed in Patients of various Ages, Constitutions, ways of Living, Sc. which make a necessary Part of a compleat History of the Gout. For here I design only to propose a very short Specimen of the Historia Prima, that young Beginsners may learn from thence the Method of gathering the first Elements of Diseases, and that with

the same Simplicity and Truth, that accompanies em from the Mouth of the Patient. And whoever considers this Model of History, will find I have kept close to the Rules and Method laid down above, and have observ'd a rigid Severity. both in observing, and describing. But, to make an End of it: Women are feldom troubled with the Gout; or, if they are, they are either Mafculine Virago's, or firicken in Years, or subject to Rheumatisms, and especially the Hysterick Illness the Source of which Disease uses to give rife to articular Pains. Children and Youths are feldom feized with it, unless they be begot by Parents that were extream gouty, in which Cafe. they have flight Paroxysms sometimes in their tender Years. When the Blood of gouty Persons, thro' the long continued Diforder of the Vifcera. and the defective Secretion of the Excrements. and other Causes mention'd before, is reduc'd to the last Degree of Impurity, and as 'twere Feculency, Death approaches, and by virtue of a Fever, or some other Disease rais'd by the gouty Matter; carries of the Patient, ason is

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street inclosed and dangerous Diforday's in the

Hippocrates, Lib. de Humor: towards the End, acquaints us, That the Accession of a Pain in the Joints, appeas'd a Pain in the Right Side of the Colon; and, after the articular Disease was cur'd, the Pain of the Intestine reviv'd. This is an Argument of the great mutual Sympathy between the Intestines and the Circumserence of the Body, mention'd so often in this Treatise. 'Tis likewise an Argument of that Sympathy between the Intestines and the Urinary Vessels, that Hippocrates took notice of in these Words, Colerici, fasti Dysfurios, omnes judicabantur. A great many are

troubled with the Cholick, before the Invalion of the Gouty Paroxysin; and upon the disappearing of the Cholick, the Gout presently shews its Head : Which is ftill a further Confirmation of the abovemention'd Confent between the Glandules of the Skin, and those of the Intestines. Those, says Hippocrates, (Lib. de Judicat.) who are long ill of a Loofeness, accompany'd with a Cough, are not cur'd. till their Feet are feiz'd with violent Pains. But there's not only a mutual Sympathy and Transmutation between the Difeases of the Skin and those of the Intestines, but likewise a remarkable Confent between the Breaft and the Privities, the Breaft and the Legs, and fo on. A violent Pain, fays Hippocrates, (Lib. 2. Epidem. S. 5.) falling upon the Tefficles, takes off a dry Cough. And again, Lib. 2. Epidem. & 1. If an Inflammation of the Teficles is follow'd by a Cough, the Inflammation will go off; and so upon the Reverse. Again, Lib. 2. Prafag. 67. When a Tefficle swells upon a Cough, it calls up the Memory of the Society of the Breaft. Dugs, Privities, and the Organs of the Voice. Once more ; Lib. 2. Prognostic. All Imposibumes in the Legs, after violent and dangerous Disorders in the Lungs, are useful. A Droply in the Testicles difcusi'd, and ill cur'd, was follow'd by a Dropfy of the Breast. Mear. Hist. Med. If an Ulcer in one's Leg dries up, and thereupon a Pain rifes in the Breaft and Side, opposite to the affected Leg. tis mortal : Hip. de Morb. Pop. Lib. 4. A Spitting of Blood enfued upon the Curing of an Ulcer in the Feet and Legs : Rhod. Obf. Cent. 2. Obl. 94 An inveterate Ulcer in the Left Leg being heal'd up by an Empirick, a Pleurify enfined fome Months after in the Left Side, of which the Patient dy'd; and during the Pleurify, he fpit fuch Matter, as us'd to run at the Ulcer : Hildan, Observ. Med, Chirurg. Cent. 2, Obs. 29. Anno 1691.

on the Curing of a spreading Sore in his Foot. From all which, that intimate Sympathy between the Breast, the Legs and the Privities, is more than manifest. But this by the bye.

An Article of Practical Aphorisms, drawn from the first History of the Gont.

Tryonshow & S E C T. I we want

de by de acceptance of the contract of A Y chief View in giving this fhort and plain Narrative of the Accidents, or Historia Prima of the Gout, was to show my Readers the Course they are to steer, in enriching the Hiftory of the other Diseases, and even of the Gont it felf, by new Observations, which are always capable of Multiplication. It remains now, to propose some general Precepts, or practical Aphorifms, which are deduc'd from the first History of the Gout, by repeated Observations made upon Patients of all Ages, Temperaments, and Ways of Living, and which conduct us directly to the Diagnosticks, and Prognosticks, and Cure of Difeafes. To begin. Those who feed upon Barley-Bread, are feldom troubled with the Gout, or Pains in the Joints. While the Gouty Pain is upon you abstain from a liberal Application of Anodyne and Emollient Medicines; for an indifcreet Use of these, breeds first stony Concretions in the Joints, and then Contractions of the Parts. There's a wonderful and almost occult Sympathy. between the Joints and the Intestines for the Diseases

Difeafes of those Parts undergo a mutual Commutation : Whence Hippocrates, Lib. de Humonibus, fays, A Pain in the right Side of the Colon, was an peas'd by the Appearance of a Pain upon the Foints. And again, 6. Epidem. 4. 3. One baving a Pain in the Joints, was troubled at the same Time with a Pain on the right Side of his Intestines; but when the Pain of the Intestines was curd, the articular Pain grew worse than before. Gouty Persons do not die of the Gout, but because the Gout does not fall down upon the Joints. Before the Appearance of the Gout, and fometimes after 'ris cur'd, an Oedomatous Swelling uses to fall upon the Feet the Cause of which retains to the Source of the Gouty Matter, which Nature, by Laws known to it felf alone, and by a regular Crisis, throws out upon the Feet in the Form of an Oedomatous Tumour Now in these Tumours of the Feet, whether before or after the Gout, be fure you make use of no Remedy, whether external, or internal, to turn off that Matter from the Feet : for I have oftentimes observ'd, that upon the exhibiting of Purgatives, Diureticks, or Sudorificks, that Matter has retir'd from the Feet to the inner Parts, and produc'd Apoplexies, Afthma's, Fevers or fudden Death. Nay, this you may infallibly expect, if you apply the external Repercuffives, commonly us'd in fuch Cases. Wherefore, we must religiously stand off from these external Topicks, and not oppose the Course of Nature, which throws out (as itwere by a Criss) the nocive Matter upon the Feet. In fuch Gouty Tumours of the Feet, 'tis conducive to leave all to Nature it felf, to take care of the first Concochion, and to mind Diet and Exercise: For I have oftentimes observ'd, both at Rome and elsewhere, that the above-mention'd Swellings disappear'd by thefe Means betal and line and out at

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delication of the

Sennertus, in Praxi Trad. de Arthrit. Cap. 4. Yeckons up an innumerable Train of Evils, enfuing upon the infufficient Defluxion of the Gouty Matter to the Joints; to whom I refer the Reader. A Dysentery cures the Gout; and all Evacuations by Stool, are beneficial in that Disease. Hipp. 2. Proret. The Gout begins always in the great Toe. Sometimes the Arthritick Illness, and the Cholick, undergo a mutual Transmutation: Sometimes it degenerates to a Dropfy, and an Anafarca. Before the Invalion of the gouty Paroxyfm, the Patient urines, sweats, and spits but feantily; he is feiz'd with an Inappetency, and a Sort of Weariness; and the Veins of the Part upon which the Gout is coming, are a little swell'd and diffended. Varices, or Dilatations of the Veins, appearing in the Time of the gouty Pain, prognofticate Relief. Old Perfons, and those who are recovering of Chronical Difeases, are apt to have the Gout, when thro' Errors of the Ule of the Six not Natural Things, they fink the Concoction of the Viscera. A violent Fit of Anger uses to bring a severer Fit of the Gout, than what it is at other Times. Those who tread often upon Grapes, or bath their Feet in Stum, are feldom troubled with the Gout. Violent Exercise after Eating, disposes to the Diseases of the Joints, and inflames them, if they took Place before. Tho' the Gout is troublesome in any Age, it gives most Trouble to Old Men, and to those who give way to Luxury and Sloth, and humour their Appetite too much. Children are not troubled with the Gout, before the Use of Venery : Hipp. Self. 6. Aphor. 30. Eunuchs are neither gouty, nor bald Hipp. Sed. 6. Aphor. 28. Pains in the Joints do the

the same Service to Old Age, that Cuticular E-ruptions do to Children, and Hemorrhages to young Men; for the Gout frees Old Men from heavy Distempers, to which they are subject if the Gout does not come : And the same may be faid of some Constitutions, that are apt to be gouty. Persons of a weak Stomach, that's apt to breed Crudities, are not cur'd of the Gout, till the Stomach is put to rights. Purgatives, and violent Diaphoreticks, do not do fo well with arthritick Perfons. As far as I could gather from diligent Observation, an exact and regular Use of the Six not Natural Things, and Stomachick Medicines, are all in all in arthritick and gouty Cases. If the gouty Paroxysms us'd to be inflam'd about the Eaninoxes and Solflices, you ought to purfue some preservative Courses before these Seasons, either by a Regulation of Diet, or by exhibiting gentle Laratives; for by this means, you'll either quite stiffe the imminent Excursion, or oblige it to come with a milder Force. Wine, Venery, and Idleness, bring the Gout; but the drinking of Water, Milk, and Exercise, cure it. In arthritick Cases, some have received wonderful Benefit from Iffues. Those who are liable to the Gout, ought to go to Bed betimes, especially in the Winter; for fitting up a-Nights, and perplexing of the Mind, injures the Concoction, and furnishes Plenty of Matter for the Gout to feed upon. But I have already deliver'd feveral general Precepts of this Difease in the First Book, to which I refer the Readering it auch an around 4 the ingelle in

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CHAP. VII.

A Monitory Schedule of Such Things as are wanting in our Profession.

SECT. I.

MY Design in this Performance, is only to exhort Physicians, to treat of those Things that are of greater Importance, and have been etther neglected by others as useless, or avoided as difficult and insuperable. With which View, I shall now briefly lay down the Series of those weighty Things that are still wanting in our Art, to which the Readers may add what further Particulars come into their Minds.

We want therefore,

A Diagnoftick, Prognostick, and Curative History of such Diseases and Symptoms, as proceed from the Diforder of the folid Parts.

A Diagnostick, Prognostick, and Curative History of the Diseases that spring from a Disorder in the Fluids.

A History of Diseases, as they are produc'd by divers Causes, or by other principal Diseases.

A Diagnostick, Prognostick, and Curative History of the Urines and Excrements retaining to every Disease.

A History, Diagnostick, Prognostick, &c. of the Condition of the Tongue, as well as the Changes and Diforders that happen upon the Skin, Eyes, and other Senses, in any Disease,

dempers, andour others.

A History, Diagnostick, Prognostick, &c. of the Diseases, and their concomitant Symptoms, that retain to the Emotions of the Mind.

A History of the ready Diagnosticks of Diseases,

and their difficult Symptoms.

A History, Diagnostick, Prognostick, &c. of every Discase, with Reference to the Variety of Ages, Sexes, Circumstances, and the various Ways of Living, especially a few Days before the Invasion; a History of Discases produc'd by the Suppression of Evacuations; and so on.

A History, Diagnostick, Prognostick, &c. of the Benefit or Detriment accruing to the principal Parts; namely, the Heart, Breast, Head, Nerves, &c. from some Capital Remedies frequently made use of in the Cure of most Diseases, such as Bleed-

ing, Purgatives, Sudorifics, &c.

A History of Cautions and Precepts, relating to the Service or Disservice, and the Method of prescribing every particular Remedy; of Cautions and Precepts, touching the Effects that ensue upon the Conjunction and Mixture of Remedies.

The History of the Invasion, Progress, Cure and Upshot of such Diseases, and their Symptoms, as are more familiar and severe in certain Seasons of the Year, and observe a Periodick Course, if I

may so speak.

An Historical Series of such Diseases as are truly Acute, or really Chronical, or in effect incurable; incurable, I mean thro' a default in the solid Parts, and the impossibility of the thing, not from the disorder of the Fluid, or the Ignorance of the Physician.

A History of all the Accidents that are wont to be observed particularly in every Disease about the

time of Death.

A History of the Causes that always, or for the most part, produce such and such particular Distempers, and not others.

A History

A History of the Diseases in which the Sick retain a clear use of their Senses and Reason to the last gasp, and those in which both Sense and Reason is sunk for several Days before they Expire.

An Exhortation to Physicians, to be always employ'd in marking down the History and Cure of Diseases, depending upon the new and general Influences of the Air, and the antecedent Weather.

An Exhortation to all Physicians, to describe a Natural History of their respective Countries; I mean the Constitution of the Inhabitants, their Endemial Diseases, the particular Method of Cure calculated for them, the Domestick Remedies, and the other Particulars peculiar to the Country.

An Exhortation to Physicians, to find out new Methods for curing those Diseases that are com-

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An Exhortation to find out new means to guard

off old Age.

A History of the Diseases of the Nose, Eyes, Ears, Ventricle, Liver, Nerves, and other the more principal Parts. These I take to be the Principal Things that are still wanting for the Improvement of Practice. If any one can think of other Heads, especially with reference to the other Parts of Physick, I hope he will not distain to make an addition of 'em to this Sketch.

CHAP. VIII.

Of the Diagnosticks of Diseases; and the Springs from which they flow. mades, describes upon the resident feoresal fire

SECT. L

S Lawyers adjust Rights from Matter of Fact, so in our way, a right understanding of the Difeafe, discovers all the Topicks of Cures. In the Cure of fuch Diseases as admit of any Delay, I proceed after this Manner. The first Day I spend in examining the Patient strictly about the occasional Causes, and all the antec dent and present Circumstances of the Disease. During that Time I prescribe no Remedies, for fear an unseasonable Prescription should perplex the ordinary Period of the Difeafe, and fink the Constancy of the Signs, and represent the Disease otherwise than it really is: At least if I prescribe any Thing, I take Care that 'tis some general innocent Medicine, which may ferve at the fame Time, to unfold the nature of the Disease, by Ob servations made upon the Benefit or Injury that accrues from it. The Second Day, having maturely weigh'd the foregoing Circumstances, I fix upon the Species of the Disease, and so commence the Prescription of the proper Remedies. So that the Truth of the Matter lies here: The first Foundation of Cure, is a just Apprehension of the Difease, and a due Distinction between it, and others of the like Form; for the first Threads or Elements of Diseases, lye immers'd in thick Darknefs, and all the Prowefs of Art can't reach the Cure, without the Direction of a folid Diagnofis.

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The only Grecian after Hippocrates, that made any folid Improvement of the Practice of Phyfick, was Calius Aurelianus, that glorious Head and Defender of the methodick Sect, who laid fo much Stress upon the Necessity of Signs in the Cure of Difeases, that he seems to have had nothing in View to earneftly, as the Detection of the Signs and Circumstances that make the Partition Walls of Diseases. And the learned World agrees, that upon this Head he has gone beyond all other Authors, both Grecian and Roman; for his Works are nothing elfe but an uleful Seminary of Diagnostick Signs and weighty Precepts. Nay, if you take a narrow View of some of his Titles. you'll see that through the whole Series of such or fuch a Chapter, he confines himself entirely to an exact Description of the Signs of Diseases, without fo much as touching upon the other Heads. In others again he infifts only on a faithful and natural History of the respective Disease, which no other Author fince Hippocrates, has ever given us, excepting Dr. Sydenbam, who seems to have taken his Method of treating and describing Diseases from Aurelianus. Though the methodick Sect was almost wrapp'd up in Silence for several successive Ages, after the establishing of the Rational Sect by Galen; yet in this our Age, it begins to revive; for the Coagulation and Dissolution of the Fluids, the Tension and Flaccidity of the Solids, to which the Moderns attribute the Origin of all Diseases, is exactly of a Piece with the Strictum and Ladum of the Methodicks; and the Practice of the best Physicians now in Italy, is grounded on the Hypothesis of Stricture and Laxity, mechanically explain'd; for the Understanding of which,

you ought to read the Writings of those learned Physicians of Naples, Rome and Pifa, who have solidly recall'd Physick to the mechanical Standard.

III.

The Necessity of Diagnostick Signs, is apparent with a Witness to those, who being called to cure Difeases, that either are complicated, or proceed in an obscure Method, or bear a Similitude to other Diseases, are presently at a Stand, and after racking their Mind, find themselves wide of the Truth they thought they had discover'd, and curing one Difease instead of another, multiply the List of incurable Diseases in infinitum. But all these Clouds are speedily dispell'd, if they light on a good Author, that by long Use has learn'd the true Diagnosticks of Diseases, or a ready Diflinction of difficult Diseases, and candidly imparts it to his Readers. The Whites in Women (for Instance) and a Clap, are accompany'd with Signs fo like, that all Physicians almost are deceiv'd in differning the one from the other, especially when bashful Women cover their Whoredom with the Pretence of the Whites. To prevent fuch Inconveniencies for the future, I'll give an infallible Sign for diftinguishing the one from the other: Aik the good Woman if the White Flux continues upon her, when her Terms come down; if the fays it does, you may tell her roundly the's Clapp'd. But if the Whites vanish during the Menstruation, and return again, when the menstrual Flux is over, assure your felf, 'tis nothing but the simple Whites. To give another Example or Two: The principal Signs of a dead Fatus in the Womb, given in by Authors, are

the Coldness of the Woman's Share-bone, a cadaverous stinking Breath, the rolling of the Fatus from one Side to the other, and the like. Now, these do oftentimes impose upon Physicians, and therefore Calius Aurelianus Cap. de fat. Mort, affifts us with an infallible Sign, viz. If the Big-belly'd Woman be troubled with a Tenesmus and a violent Inclination to go to Stool, in conjunction with the Symptoms last mention'd. I was witness of the certainty of this fign once at Padua, and another time at Rome. The Signs of a Dropfy in the Breaft are very obscure and uncertain; but if the Patient is troubled with a difficulty of Breathing that falls heaviest upon him in his Sleep, infomuch that after a few hours Sleep, he wakes all on a fudden with a fense of Suffocation, opens the Windows and greedily fucks in the open Air; this, I fay, you may take for a certain and infallible fign of a Dropfy in the Breast; for you'll find that the Patients Legs will swell, and the other less constant Symptoms will accrue. In fine, the progress of the Disease, and dissection of the Corps of such as die with this Symptom upon 'em, will convince all that disbelieve it. There's no part, the diforders of which are more intangled one with another, and confounded by reason of obscure Signs, than the Lungs, infomuch, that oftentimes Practitioners take one Disease for t'other. But above all, the greatest Mistakes relate to a Tuberculum or hard Swelling in the Lungs; of which Hippocrates, Lib. de Med. fays, 'Tis a very artful thing to find out and dissolve the Tubercula of the Lungs, or to prevent their gathering. And Dr. Willis, Cap. de Vomic. Pulmon. speaking of the Tuberculum, says, This disorder lies at first so close and bidden that it affords no figns to betray it. The same is the Opinion of Tulpius, and the other learned Practitioners, who despair delpair in a manner of finding Pathognomick and Infallible Signs of this Difeate, and particularly upon this Confideration, that a morbifick adhesence of the Lungs to the Ribs, is attended with the same fort of Symptoms. But after all, so far as I can learn by Observation, the more constant figns are as follows. The Patient being otherwise well begins to breathe with difficulty; this difficulty increases by degrees; he does not mort when he breathes, neither does he spit, up Matter; he feels a continual pain in his Breast, and can't lye down upon the place affected; he's troubled with a dry Cough, his Cheeks are Red, a flight Fever approaches and at last when the Swelling tends to Suppuration, the other Symptoms of Suppuration take place. In the mean time, there are two Pathognomick Signs of a Tuberculum that's yet crude and beginning, namely, a dry Cough, and a flight pain in the outlide of the Breast: To which purpose Hippocrates, Text. 63. 1. 1. de Morb. fays, While the Tuberculum is yet crude, it causes a gentle pain, and a dry Cough. Those who are ill of this Diftemper, die suddenly very often; for after Suppuration the purulent Matter breaks out into the Wind-pipe and choaks 'em. And for this Reason the further 'tis diffant from the Windpipe and the center of the Lungs, the less danger there is of Suffocation; for in such cases the Pus will break into the Cavity of the Breaft, or elfe be thrown out by Urine. If a violent and fudden pain in the fide feizes Confumptive Persons, they'll be delirious foon after with a high Fever, and fo die in a few days. But when this Pain and the above-mention'd Circumstances appear, you may conclude for a certainty that the Confumption was owing to a preternatural connexion of the Lungs with the Ribs, which repeated Diffection will inflify. IV. I

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ill offer being all the Line I wish every particular Disease had two or three infallible Signs, as well as those I've now mention'd, 'Tis to be wish'd, I say, that some Phyficians in all Ages had made it their Business to purfue and improve the Doctrine of Signs; had that been done, questionless the profession of Physick, had arrived at its arm long e're now, at leaft as far as our mortal State will allow. But they thought it a greater Business to foil an Adverfary by Dispute in Galen's School, than to conquer Nature in the School of Nature by matter of Fact and new discoveries of Signs. In earnest, since two Diseases rang'd under the same Species, are hard to be cur'd (as I have often intimated) without each of 'em be duly specify'd to us by proper Signs; what difficulty will there be in the cure of fuch Difeases as are under the remotest Species and infinitely different one from another? For the purpose when the Diagnostick figns of any Difeafe are once found out, the Remedies and Indications of Cure are prefently fet in a clear light but if the Diagnosticks lie neglected or undifcover'd, a Difease of one Species is took for another of a far different kind; and so the iffue of the Cure not answering the Opinion thus took up, the ignorant Phylicians turn their Back upon many Difeafes as being incurable; they cenfure the Method of Cure, cry out upon the uncertainty of Physick, deride the Doctrine of Critical Days, and neither know nor care to know the Art of Prognosticating. In fine, upon this false Conception, they judge rashly and inconsiderately of every thing. But after all, 'tis not Arguments but good Works that we must find out; 'tis not probable Reasons, but certain Indications of what's to be done, that will do our Business: For our Ratiocination may oftentimes captivate and please the Intellect, but it does not reach the Nature of the Thing.

CHAP. IX.

Of the Causes of Diseases.

SECT. I.

Some Preliminaries calculated for the History and the Division of Causes.

Aving thus gone through the Method of perfecting the History of Diseases by their Phanomena, our next Task will be to imbellish it with the Causes that give them a Being; and here before we enter further upon this Subject, we cannot but take notice that Physicians are much mistaken, in thinking that fome Diseases are Primary Difeases, always produc'd by the same Causes, and ftill requiring the same Method of Cure; for the repeated observation of the most judicious Physicians makes it out, that fuch Diseases are not always primary and the product of the same Causes, but secondary, and the issue of divers Causes, and confequently that they are divisible into as many Species, as there are principal Diseases, and more constant Causes which produce 'em; nay, that each of these Species into which they are subdivided, has peculiar Symptoms, and a peculiar manner of Invasion, Increase, and Declension: And, in fine, that each of 'em requires a quite different Method Mesal State of a state of the s

from any of the reft. This will appear more plainly from the following Example.

2.

The Galenists of former times took the Phthisick to be a primary Disease of one Species, springing always from the same source of Causes, namely, the distillation of Humours from the Head to the Lungs, and requiring in all Cases the same Method of Cure. Now, how far they are out in this Matter, is manifest from the diligent Observations of Morton, and other modern Phylicians. For thefe being taken from the Store-House of Nature, give us certainly to know, that the Phthisick is frequently a fecondary Disease retaining to divers principal Diseases, such as the Pox, the Scurvy, the Jaundice, the Green-Sickness, an Asthma, a spitting of Blood, Ulcers internal and external, Fevers Melancholy, the small Pox, a Dropsy, a Dyfentery, the Passions of the Mind, hard Study, and a thousand such occasional Causes. And as a Phthisick is foster'd by such various Diseases or Causes; so it carries along with it various Symptoms quite different from the Phthificks of another Species, and requires as various a Method of Cure, and Remedies of as different a Nature. So that if you neglect to diftinguish heedfully the Phthifick of one Species from that of another, and apply the Method of Cure and Remedies of the one to the other. you'll throw your Patient into evident danger, or undergo the discredit of not compassing the Cure.

What I have said of the Phthisick, must like-wise be understood of the other Diseases, especially those call'd Chronical; and certainly this is one of the great defects in our Profession, that every Disease is not subdivided into as many Species as there are primary Diseases to softer 'em, and violent and constant

constant Causes to produce 'em; that the Character riffick Signs of each Species are not given along with the first History, and a standing Method of Cure calculated for each. This Method, we fee, is follow'd by the Botanifis, who under the general name of any one Plant, Carduus, for instance, comprehend several Species of Carduns's, and are so sedulous in describing the Magnitude, Figure, Colour, Tafte, and other Accidents of the Plant, in order to diffinguish one Species from another, that their Industry can never be too much extoll'd. On the contrary, Phylicians finding some Diseases resemble one another in some Symptoms, comprehend them under one general Title, tho' in effect they ought to be divided into as many Species, as there are principal Difeales or violent Caufes to foster them to these they promiscuously apply the same Method of Cure, tho the Diseases are really of different Natures, and require different Cures, and ought, each of em to be rang'd under peculiar Heads; like the Species of a Carduus, which tho' comprehended under one Genus, are, all of 'em, treated apart.

The ancient Physicians used this piece of dili-gence with reference to some Diseases, but they neglected it in many more. The fleepy Difeafe, tho' it feems to be but of one Genus, was by them accurately divided into several Species, namely, a Cataphora, a waking Coma, a fleepy Coma, a Lethargy, a Carus, an Apoplexy, &c. and they ascribed to each Species, Diagnosticks, Prognosticks, a respective Method of Cure, and the other more necessary complements of its History. Tho' a Pleurify and a Peripneumonia be one and the same Difeafe as to the Genus, upon the account of the Similitude of the Place affected, the Cause and some other Symptoms, yet the ancient Physicians made two diffinct Species of 'em, and allotted to each of cm THE PRO

em a separate History of Diagnosticks, Prognoflicks and Cure. Tho a Covultion is a general Difeafe, both the Antients and Moderns have thought fit to filit it into several Species; for besides that great and flaming Illness, call'd the falling Sickness. there are three general Convulsions, call'd, Optistbotonos, Emprofibotonos, and Tetanos; besides particular Convulsions of the Mouth and Eyes, the convulfive Afthma, the convulsive Cholick, the convulfive hyfterick Fits, the Convulsions of the Muscles of the Abdomen, and many other Diseases retaining to inward Convulsions; tho' Authors have not yet rank'd 'em under their proper Heads. Having mention'd the Convulsions of the Muscles of the Abdomen, I can't but take notice by the bye, that tho' they are very unfrequent, I had to do very lately with a Patient of 40 Years of Age, the Muscles of whose Abdomen were affected with violent subsultory Motions and Convulsions, and who recover'd upon the voiding of Blood by the hemorrhoid Veins, the injection of Milk Clysters, and the drinking of a due quantity of the Oil of Sweet Almonds with the Syrup of red Poppies diffolv'd in large quantities of Broth or Decoctions. To return We have not only the above-mention'd Species of Convulsions diffinguish d under respective Heads but likewise their Diagnosticks, Prognosticks, and Precepts of Cure; and as accurate a Description of their first History, as was consistent with those unpolish'd Times, in which Physick in conjunction with all good Arts, was run down by the Northern Nations, upon the declenfion of the Roman Empire.

We see every Day that every principal Disease personates another of a very remote Species. The Hysterick Illness (for instance) not contented with its familiar Accidents, such as a sudden oppression of the Senses, a Sense of Strangling in the Throat, and cold in the Crown of the Head. Convulsions of the Parts. &c. oftentimes imposes upon Physicians under the appearance of a Head-ach, Apoplexy, Palpitation of the Heart, a Cough, an Afthma. a Cholick, a Vomiting, a Loofeness, Nephritick Pains, a Swelling and Pain in the Legs, a chillness of the extreme Parts, grievous Pains in the Back, and a great many fuch Difeafes. I was lately call'd to a noble Lady that was ill of an Afthma, and despair'd of Recovery, after the fruitless use of Antiafthmatick Remedies for three Months together; and being inform'd that the was frequently subject to Hysterick Fits, and in her present Condition was almost never without a Sense of Cold and a fort of Pain in the Crown of the Head; I did not fland to affert that her Afthma retain'd to a Hyfterick Original. Accordingly I prescrib'd the Salt of Tin in Balm-Water, and apply'd to her Navel Minlichtus's Emplastrum Matricale, which has the Salt of Tin in its Composition; and in the space of a few Days the recover'd perfectly. A young Man at Rome was ill for eight Months, of a violent and very painful Ophthalmia or Inflammation in his Eyes, and coming to me after a vain Trial of all forts of Remedies, I began to be suspicious of some violent suse or principal Disease that personated an Opthalmia, and accordingly ask'd him if he had ever been tainted with a venereal Illness. He made answer he had been ill of a Clap about 8 Years ago, and was cur'd of it in two Months time. Upon this, being fenfible that the Seeds of that Contagion flick oftentimes to the Blood for 30 Years and above, and after apparent Health break out in the form of feveral' Diseases; I presently concluded that the Ophthalmia was Venereal, and cur'd him in ten Days, with large quantities of the Decoction of Sarfaparilla. crude Antimony, &c. drunk like Mineral Waters. From

From these and other Instances, which for brevity's sake I pass over in silence, I may justly conclude that Physick would receive considerable Benefit from a division of Diseases into as many Species as there are principal Diseases or violent Causes to softer 'em. For if we had had an exact and faithful History of the Prognosticks and Diagnosticks, the method of Cure and the general Precepts of an Hysterick Asthma, and a venereal Opthalmia, the Physicians that these two Patients consulted at first, had not been imposed upon, as they were. In fine, without such Divisions, the History of Diseases will be crouded with Errors and cover'd with Consustant.

6.

How many Miftakes were the Ancients guilty of in curing the convultive Afthma, and not knowing that it proceeded from Convulsions; till at last the Moderns observ'd that it arose not from a viscid Humour crouded upon the Lungs, but from the Convullion of the Mulcles of the Breaft or Midriff, or of the fleshy Fibres interlac'd with the Lungs? With which view they christen'd it the Epilepsy of the Lungs, and allotted it a separate and distinct History of Diagnosticks, Prognosticks, and Cure. The Ancients were equally gravell'd in the cure of a Convulsive Cholick, till Fernelius discover'd that it proceeded not from the cold Humors in the Intestines, as they call'd 'em, but from the Irritation and Convulsion of the Nerves of the Mesentery and that 'tis exasperated by Purgatives, Clysters, and hot Remedies, but appeas'd by Anti-spasmodick, Dulcifying, and Anodyne Medicines, The fame Method ought to be observ'd in treating all Diseases. especially those call'd Chronical, the Fermentations of which are long winded and confiant, whereas those of Acute Diseases are short, and are produc'd by flighter Causes, nay, they finish their Ebullition under

258 The Practice of Physick.

under the appearance of a principal Difease, as is manifest in Fevers, Quinseys, and other acute Disorders while a delegate or the world and

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Here's nothing to difficult as the Investigation of the very first and immediate Cause that calls up Diseases, and disorders the Patient without any other Medium. 'Tis this that has occasion'd the fatal Mistakes and Divisions that Physick now groans under. For we being destitute of Intuitive Knowledge, and uncapable to trace the fecret Motions of Diseases with the Eye of Reason, are oblig'd to have recourse to the repeated use of our Senses. But all Physicians have not observ'd the same Conduct in the use of their Senses. In ancient Times Hippocrates and his Fellow Greeians laid fo much stress upon the Efficacy of the Senses in enriching Physick, that, as Petronius said of Democritus, they fpent their Life in the midst of Experiments, and fo obtain'd a more intimate knowledge of the Caufes of Diseases, only by the constant and uninterrupted exercise of their Senses. And the they could not compass every Thing, as it appears from what Fragments of their Works have furmounted the envy of Time; yet they went so far, that they drew the Curtain from before the Nature of Difeafes, and dispell'd the Clouds that obscur'd the Truth. But the rest of the Physical Family that made Head against Diseases in the succeeding Ages. quitted the use of Sense, and rack'd their Wits to find out the true secret of the Causes of Diseases and

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and in regard, that is not to be reach'd by Reafon without the Concurrence and Co-operation of the Senses, all their Advances of the Causes of Difeases are nothing but groping in the Dark; so that they have only diversify'd the outward Denomination of Diseases by various ways of speaking, without touching upon the Essence and real Cause.

11.

To observe a regular Method in this Enquiry; we must take in the ancient Division of Causes into the Procatardica, the Pragumena, or Disposition of the Body, and the Caula Proxima, or that which is always accompany'd with the Difease, and without which the Disease can't be. The external Antecedent or occasional Causes, call'd Procatardick, whether Internal or External, are oftentimes flighted by Physicians, upon the account, that after the Production of the Difease, they either retire all together, or are conceal'd by the Patient: So that they bend all their Thoughts in confidering and extolling the Caufe Proxime, that lie remotest from the Verge of the Senses. Now, this is all against the Grain; for we ought to take Indications of Cure from the least Circumstances, and from Causes of any Kind whatsoever, especially if they assume the Nature of Cansa Continentes, and either keep up or feed the Distemper, as in Chronical and Periodick Diforders, which could never last and renew their Efforts so long, if their immediate Cause were not rais'd up by the gradual Accession of fresh Fewel, that multiplies either from an internal or external Caufe. This holds in all fermentative Diftempers; for even inanimate Bodies under Fermentation are subject to these Measures, and oftentimes stand in need of an external Mover, such as Heat, Motion, &c. to excite the Fermentation: In fine, confidering that the three Caules I mention'd but now, are equally concern'd either in producing or encouraging the Disease, I shall here shew how Indications of Cure are to be taken from each of 'em.

III.

The Procatarctick Cause is more obvious to Sense than any of the rest; and I positively affirm, that unless a particular Regard be had to this Cause, the Cure will never go well on: For by those external Things that give Occasion to the Difeafe, we gain a more compendious and certain way to the Knowledge of the internal Nature, provided those external Things are duly examin d. Suppose one should undertake the Cure of a Fever proceeding from the scorching of the Sun, or fome fuch external Caule; and going upon the modern Hypothesis, that not only Fevers, but all Difeafes proceed from an Acid, should prescribe volatil Alcali's in a liberal Quantity, with Intent to break the febrile Acid, and throw it out by Sweat: Suppose, I fay, he should insift on this Method. would not he be monftroully mistaken, fince the raging Motion of the Blood, occasion'd by the fcorching or forne fuch heating Caufe, ought rather to be appeard by gentle Medicines, than fpurr'd by furious Alcali's? When therefore the immediate and nearest Cause puts on a different Face, according to the Diversity of Procatarctick and Antecedent Causes, we ought always to have regard to these in taking the Indications of Cure. For a Fever arifing from unfeafonable Cold, must be treated after a different manner from a Fever occasion'd by Drinking, Venery, standing in the Sun, Emotions of the Mind, and other Causes,

This fills me with Amazement, in feeing the Physicians of this Age aim only, and that with Triumph in a manner, at the assigning of the first

and immediate Causes of Diseases, which lie at the greatest Distance from our reach; and overlook the occasional Causes that are obvious to our external Senses. Let the external Cause of a Difease be what it will, they treat it the same way. as if it proceeded from another; and regardless of the ancient Discipline, subvert the Method and Priority of Causes with a blind inconsiderate Forwardness. Who can tell the Nature and Condition of the minutest Texture of the Blood in a Fever. a Pleurify, an Apoplexy, a Delirium, and other Diseases? And who can decipher the first and immediate Cause that sets them all at work? For in whether Acute or the Production of Diseases, Chronical, there's fome occult Caufe at work. that human Speculation can't fathom, and is fought after in vain, unless we can smell it out from the Juvantia and Ladentia. 'Tis the Ignorance of this immediate Cause, that gives rise to so many idle Conjectures: Some taking it to be the Bile, others an Acid, others a pituitous Humour, join'd to the four Humours; others a fubtile and ethereal Matter. &c. Upon which Conjectures they raife false Indications of Cure, and with a Magisterial Air cut the Sinews of further Enquiries,

Not that I mean to vindicate the Empiricks, who are all upon evident and sensible Causes, and contemn the latent and internal Causes; or to join in with Herophilus, who attributes no Cause at all to Diseases. I only lay this stress upon the evident and obvious Causes, upon the Consideration, that our Art is Conjectural, and plac'd in the midst of Darkness; so that we are oblig'd to acquiesce sometimes in such things as we seel with our Senses, and discover by the Dissection of dead Corpse; for these being plain and manifest, will seldom impose upon us, or at least not to the same De-

gree with the internal and remote Caufes, All this is confirm'd by Dr. Sydenbam, who in the Preface to his Works speaks to this purpose As tis impossible for a Physician to trace those Gauses which have no Correspondence with the Senses, so itis not mece fary : for tis sufficient, if be knows whence the Evil and its Symptoms arise, so as to make an accurate Difindian between one Disease and another. I would therefore advise all Practitioners to interrogate their Patients particularly about the occasional Cause that set the internal Cause at work : for as the Knowledge of that renders the Cure easy, so the Patients are wont to conceal it either through Careleiness or Bashfulness. Is not that Physician a Madman, that would offer to cure a Fever occafion'd by Excess of Venery, with the same Method of Purging, Bleeding, &c. that's commonly calculated for such as take rise from other Causes? I was lately call'd to attend a Nobleman that was desperately ill of the Sciatica, after using all Sorts of Remedies to no purpole; and having fmelt by chance, that about twenty Years before he had had Venereal Bubo's upon him, I thereupon suspected the Sciatica to be Venereal, and cur'd him in a few Days with a Decoction of Sarfaparilla, Crude Antimony, &c.

Not first I mean to vindicate the French

The Cause call'd by the Grecians accomplishers, and by the Latins, the disposing Cause, or the Disposition of the solid and fluid Parts of the Body to receive the Difease, is not a Cause, properly fo speaking, because it does not act of it felf; But in regard the Procatarctick or occasional Causes cannot exert their Force, unless the Body be diff posed to receive their Impression, some Authors have listed this Disposition into the Number of Caules.

Canfes, and thought it a proper Standard, both for giving and regulating Indications of Cure. Of many that lie with a foul Woman, only some are infected. A great many attend People that are ill of the Plague, and yet never have it themselves. Many join in the same Excess of Intemperance, that are not equally punished for the Mildemeanor. Several Persons lie equally under the Influence of one common Caule, but all of them do not fall fick. This gives us to know, that sometimes the occasional Cause would not exert its Force. unless the Solids and Fluids of the Body were predisposed to favour it, and so call up the immediate Cause. This Disposition is sometimes obvious to the Senses, and sometimes occult. Of the former Sort are the Scorbutick, as well as the Pocky. Hypochondriack, Epileptick, and fuch other Difpositions as are manifested to us by antecedent Diseases: And these we ought not to overlook in the Cafe of new Diseases; for the Indications of Cure ought to be levelled both at the new Diforder, and the old Disposition of the Body. The latent occult Dispositions are those peculiar to every Man, which the Ancients called Temperament, and diffinguished into hot, cold, moist, and dry; and these again into simple and compound: Now these Temperaments or Dispositions taken in a large Sense, may contribute somewhat in producing a Disease; but at the same time, it is a difficult and idle Pretence to imitate the Pseudo-Galemifts of our Times, in reducing all to such Qualities, and deriving from thence the immediate Caule of Difeales.

VII,

In effect, these internal Properties that dispose the Blood to receive various morbifick Impressions,

are infinitely different one from another : for one Constitution disposes the Blood to Coagulation. another to Diffolution, Inflammability, &c. one dispoles it for a malignant Fever, another for an Ephemera, and so on. Now human Speculation can scarce reach the genuine Nature of these Difpositions, and the true Structure of the Minima of which they consist. But from the former way of Living, and the Use of the six Non-natural Things, we may guess at some general Qualities; as whe ther the Dispositions are terrestrious sharp, acid, moilt, inflammable, groß, apt for Coagulation, &c. An intemperate Way of Living, unwonted Sitting up a-Nights, unusual Exercise, Anger, and such like impetuous Occasions, give us to know that the Blood is very active, sharp, and inflammable; and that the Diseases which appear in that Juncture, are either produced or encouraged by this Disposition'. So that the Indications calculated for the Cure of the Difeafe, ought likewife to have a regard to this previous Disposition. The Ancients gave you the Signs of the first and fecond Qualities over-abounding in the Body and disposing to Diseases; and these they called Intemperies, some of which they made be accompanied with Matter, others without it, &c. atricity of

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The Weight and Duration of Diseases is proportional to the Greatness and Continuance of this Disposition: As it is manifest from the Experience of those who give an indiscreet Loose to Intemperance, Venery, unwonted Watchings, unseasonable Labour, Pashons of the Mind, and such other Inconveniencies; for these Men are longer and more dangerously ill, than others who used to live soberly and regularly. Having therefore found

found out the occasional Cause, by conversing with the Patient, we may make some Conjectures of the predominant Quality in the morbifick Disposition of the Solids and Fluids; as whether 'tis sharp, acid, viscid, inflammable, coagulating, &c. And in order to fet all this in a clear Light. we must likewise be acquainted with the natural Conftitution of the Patient; I mean, we must know whether it is hot or cold, moist or dry, (to nse the ancient Names, without wrangling upon Words) or whether the Blood abounds (in the Language of the Moderns) with moift, terreftrious, fiery, or fixed, unactive Particles, which are all correspondent to the Qualities of the Ancients. Under the Head of the Patient's Constitution, we must likewise consider the solid Parts, whether they are flaggy or bent, liable to Convulsions or Relaxations, near the Impulse of the Heart, or at a distance from it, watered with much or little Blood, plentifully stocked with fleshy or nervous Fibres, &c. For all thefe Circumstances are of use to unfold the inner Dispositions of the Parts. and unless they be duly weighed, a great many inconveniencies will arise in the Use of Remedies. upon the account that thefe ought to be variously tempered and blended, in pursuance of the various Temperature of the Fluids and Solids, and the Divertity of antecedent Caules, &c. Reief, and what is pre

SECT. III.

Of the immediate Cause of Diseases, and the chief Heads that serve to discover it.

I.

Having thus dispatch'd the occasional and dispositive Causes, we come next to the Causa Proxima, or the immediate Cause, the Presence or Absence

Absence of which gives a necessary Inference of the Presence or Absence of the Disease. this Cause that raises every Day such scandalous and fatal Divisions among Physicians. But confidering that our Thoughts cannot readily fathom what is a doing within us, we are obliged to take Help from such Methods as we are more fure of. The Men of Learning having labour'd long in vain in feeking out the immediate Caufe, and adjusted the Nature of the foreign Ferment that immediately produces every Disease, came at last to this Conclusion, That if so be we discover the Indications of Cure, and the Remedies proper for the Disease. 'tis no great matter whether we know the immediate Cause or not. This Affertion is justified by the Empiricks, who contemning the learned Speculations of Physicians, with reference to the immediate Causes of Diseases, are oftentimes as happy in curing Diseases with their Are canen's, as the rational Sect are with their elabor rate Methods and Speculations. And the fame thing appears from Epidemick Diseases, produced by the faulty Constitution of the Air , the immediate Ferment of which cannot be traced or adulted by us, though at the same time we are not guerant of the Method that extirpates the Diseases thus produced by the unknown Cause: for, upon a fedulous and prudent Observation of what affords Relief, and what is prejudicial, we readily light upon fuch Methods. In fine, What candid Phyfician can deny, that he is almost entirely unacquainted with the internal or immediate Cause of Diseases, and yet undertakes their Cure; nay, and happily compasses the End, by virtue of a Method obtain'd by long Use and Experience. "Y Aving Course that the Pale checked the acid this

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But after all, we can point to feveral Ways of being let into the Knowledge of the immediate Cause of every Disease. In the first place, we may come at it by knowing the occasional and disposing Causes, of which above. In the second place, there are feveral Diseases, the immediate Causes of which are easily brought to Light; such Causes are Water in a Dropsy, purnlent Matter in an Empyema, and the Stone in Nephritick Cales! the Removal of which, fometimes argues the Removal of the Disease. Though indeed it must be confessed, that oftentimes this does not hold by reason that a remoter Cause feeds the Hydropical Water, the Empyematical Sanies, and the Nephritick Stone, and is inacceffible to our Speculations: In which Cases we must have recourse to the following Artifices. Thirdly, We may trace the immediate Cause by the Excreta and Retenta, the Diforders of the Tongue, Eyes, Face, and other Parts that are obvious to our Eyes. In the fourth place, the Juvantia and Ladentia, and the Method of Cure appropriated to any Difeale, may give us fome Light. A Fifth Help will be an Investigation of the Nature of what proves ferviceable or differviceable: for if we once discover that, either our Senses or our Reason will readily conduct us to the Knowledge of the minutest constituent Parts of the immediate Cause. The fixth is the Mutation of one Disease into another, of the like. or of a quite different Form. The Seventh is the Diforder of the principal Functions, viz. the Pulse, Respiration, Strength, Edg. And the Eighth is a due Confideration of the Nature, Force, &c. of the Symptoms that accompany the Discase. io washinda / a III. To

Salt

III.

To begin with the Excreta and Retenta: The chief Particulars of this Class; are the Ordnre, Urine, Spitting, Sweat, Vomiting, Blood drawn forth by opening a Vein, the Colour of the Skin, Nails, Eyes, &c. We are sufficiently informed by the Chymical Analysis, what Principles the Urine confifts of; and particularly, that in a natural State, an Armoniack fort of Salt bears the Ascendant, and gives both Colour and Weight to the Urine: But in a fickly State, the Nature and Mixture of the Salts is (perhaps) as various as the Diseases themselves. As the Urine therefore is more or less high colour'd, it argues a Plenty or Scarcity of fuch Salts which produce Difeases. Those who fall into a fatal or mortal Suppression of Urine, are feized with a Stupidity, a Trembling, and an univerfal Shivering; and at last, with a Fever, Apoplexy, and the other Diforders of the Nerves: By all which we are taught what Diseases the Salts of Urine, abounding in the Blood, are apt to produce. In acute Diseases, pale and thin Urine prognosticates a Frenzy and the Diseases of the Head; so that we may reach the Knowledge of the first and immediate Cause of fuch Diseases, if we are but acquainted with the genuine Nature of the Principles of which the Urine confifts, and so may fix upon the Cure by dearning out of the Phylicks what things are contrary to fuch and fuch Principles. Further, the Smell and Colour of the Excrements or Ordure will give us to know the Nature of the immediate, or rather the antecedent Caufe, from whence the immediate Cause is derived. If the Excrements be too yellow, or rather green, black, too they speak a Redundancy of acid, sharp, and vitriolick Salts; if they are white, copious, or liquid, they speak either the Inactivity of the Ferment of the first Passages, or an undue Paucity of saline and fulphureous Parts, thefe being the Parts that give Smell and Colour. Above all, the Tongue affords the closest Signs of the State of the Blood: An acid Tafte upon the Tongue, betrays the acid Constitution of the Blood, and that of the other Humours deriv'd from thence; a falt Tafte speaks the Saltness of the Blood; a bitter Tafte gives us to know its abounding with bitter Particles; a viscid, mucous, insipid Taste, speaks Plenty of the like Particles: If the Tongue is moift, fo is the Constitution of the Blood, if dry, then the Blood is of a dry, inflammatory Nature. In fine. take this for a Secret, That the most certain Signs of the State of the Blood are taken from the Tongue: for that Organ being a Collection of an infinite Number of little Glands and nervous Papille, through which the morbifick redundant Parts are immediately convey'd without fuffering any Alteration by the way, as they do in other Emunctories; we ought therefore, in the Knowledge of Difeases, to lay a great Stress upon the Affections and Alterations of the Tongue; especially confidering that the other Signs do frequently deceive us, whereas this feldom or never does. Take care then, that you never visit a Patient without minding his Tongue, let the Disease be what it will especially if you suspect internal Inflammation for these you may certainly learn from the Tongue which dries upon the least inflammatory Disposition, and grows drier and drier as the Inflammation rifes. Analytical Company of the house of the

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Sweat and Vomiting lie under the same Rules with the Urine and Ordure, for the Colour, Smell. Quantity. &c. of the Humour thus evacuated, discovers the respective Nature of the immediate or antecedent Cause, as above. The Blood drawn by opening a Vein, will make the fame Discovery: if it be too bright a Red, it speaks Plenty of volatile and inflammable Parts; if blackish, then terreftrious and fix'd Parts abound. In all Inflammations of internal Parts, especially an acute Pleurify, the Blood drawn has a white Gelly, like Cruft, upon its Surface; which indeed is nothing elfe but the Nutritive Chilous Part of the Blood disengaged from the Body of the whole Mass, and gathered into a white Crust, by vertue of the excessive Heat of the Blood, and its being overflock'd with volatile Particles. So that in the Cure of fuch Difeases, the over-bearing Fermens tation ought to be reftrained by repeated Bleeding. and by Anodyno-Alcaline diluting Medicines , that by this means the ruddy and nutritive Particles may be amicably link'd together, and a Stop put to fuch inflammable Diffolutions. The Confifence of the Blood shews likewife what Principle 'tis over-stock'd with. The Blood of Hectick Persons is of a bright red Colour, and does not easily congeal; and at the fame time they are lean, watchful, peevish, &c. from whence we learn that there is a Redundancy of somewhat that is too sharp in their Fluids. Vepferus Exer. de Apoplex. Pol. 429. acquaints us. That in diffecting the Corple of some that dy'd of continual, and some of malignant Fevers, he found the Blood fluid, and not congealable. Simon Pauli de Febr. malign. self. 2. observes. that in feveral dangerous Cases, he found the Blood

Blood drawn out of a Vein to be very red, and almost of the Colour of the Flower of the Indian Throatwort, with little Serum. The same thing is observed by several Moderns in pestilential Cases. We conclude therefore, that the Colour, Consistence, and other Qualities of the Blood drawn by opening a Vein, may point to the latent Constitution of the immediate Cause.

V.

Since I am speaking of the Nature of the Blood. I must observe by the bye, that no Physician can cure a Fever happily, without he inform himself of the State of the febrile Blood, before he exhibits any Remedies; as whether 'tis too rapid. thin inflammable, &c. or on the other hand, apt to congeal, thick, malignant, &c. For in such different States of the Blood, the Indications of Cure must be diversify'd accordingly. When the Blood is apt to dissolve and boil over with a furious Rage, it must be treated otherwise than when it tends to Coagulation, Ropiness and Malignity, We must not, in the very Beginning of Fevers. commence the Cure of all promiscuously by such Medicines as cleanse the first Passages, (as they call it) and purify the Blood it felf; for that untimely Use of Purgatives either redoubles the Fever or renders it malignant. There is no certainer Sign of an imminent Hysterick Fit, than the Colour of the Urine; for it turns, a little before the Parozysim, from a citrine to a watery thin Colour. We observe further, that in violent Commotions of the Mind, the Urine turns from a high red, to a watery pale Colour; and does not retrieve its natural Colour, till the Passion is quite gone off. This watery Colour of the Urine is a constant Forerunner of a convultive Poroxyfm; and in Spafmo-1961

Spafmodic Cases the Urine is almost always thin, clear, and plentiful. From these Observations we may draw this Inference, That the above-mentioned Diseases are either produced or sed by the Salts of the Urine. The Colour of the Skin is likewise to be regarded: If it be white, pale, yellow, blackish, brown, or the like, it denotes the abundance of such Parts in the Viscera, or the Blood,

VI.

Next to the Excreta and Retenta, are the Juvantia and Ladentia, or the Method of Cure appropriated to every Difeafe; by which we may trace the Nature of the immediate, or the antecedent Cause. To instance in Intermitting Fevers: They rage chiefly in the Spring or the Autumn, at a time when Crudities are thrown in upon the Blood, either thro' the Intemperance of the past Summer, in eating Fruit and drinking Water, or through the nipping Cold and unufual Wetness of the preceding Winter. Bleeding and Purgation in the Beginning of these Fevers, makes 'em worse; Their concomitant Symptoms are Cold, Weariness, Shivering, a gentle Heat, a flimy Tongue, and immoderate Thirst; the beneficial Medicines are those of a bitter, sharp, and volatile Lixivo-alcaline Nature. The Medicines that inflame the Difease, are refrigerating Syrups, too moist a Diet; flimy and inactive Food, &c. The Fits are exasperated by such Food as is not easily digested. and by over-feeding; and on the other hand, Ab. stinence makes 'em gentler. If you commence the Cure of these Fevers with the Febrifuga, you will throw your Patient into many Diforders, Such is the Series of the Juvantia and Ladentia in intermitting Fevers: from whence 'tis manifest, that

that their immediate Cause is somewhat of a crude, flimy, viscous, and congealable Nature. The principal Source of the Gout and the Stone is Wine, Venery and Intemperance; and the Antidote is the drinking of Water, Milk, and a fober way of living; but above all, a due Regard to the Stomach. From whence we argue, That the im-mediate Cause of the Gout is something of a sharp, terrestrious, and acute Nature; that being readily fed by Wine, Venery, and Intemperance; and there being nothing more effectual in breaking the Shock of sharp, terrestrious, and acute Particles. than Milk and Water, which confift of fost and flexible Parts, and fuch as eafily make their way. Now this Scrutiny ought to be minded in all Difeafes, especially such as are encouraged and kept up by some occult Causes, or the Influence of the Air : For by exhibiting some Remedies in the Beginning, which may be tried without Danger, and observing whether they do good or harm, we may quickly inform our felves of the Nature of the immediate Cause, and its Tendency to depart through this or that Passage; and that chiefly in occult Diseases, or such as are of a recent Epidemick Nature; in which we can't avoid the inffering of one or two of our Patients to run the rifque of the Disease, till such time as a Judgment can be made upon the Juvantia and Ladentia, fo as to form a proper Method of Cure.

VII.

In the fifth place, a due Survey of the Nature of what benefits or prejudices the Patient, will lead us to the Knowledge of the immediate Caule. In Hectick Cases, for Instance, all the World holds Milk to be the chief Remedy: Now the Prin-

Principles of which Milk is compos'd, are Cheefe. Butter, and Whey; and the Cheese and Butter confist of fost, mild, alcalino-fulphureous Particles. &c. So that the Hectick, Morbifick Particles in the Blood must be sharp, rigid, pointed, &c. Intermitting Fevers, great Benefit is obtained by the Use of such Medicines as are bitter, sharp, Lixivo-Alcaline, &c. Now the Particles of which these consist, are stiff, acute, sulphureous, &c. and confequently the morbifick Particles of fuch Fevers must be the Product of viscid, gross, and unactive Matter. In ardent Fevers we find Benefit in the Emulsions of the Seeds, large Potions, gentle Acids, and Anodine Remedies; the Particles of which are mild, gentle, and watery; fo that the Particles of ardent Fevers must consist of a volatile, Tharp, acid, and impetuous Substance. In feveral lingring Fevers, and fome chronical Diffempers, we receive great Benefit from the auftere hitter Medicines that approach to the Nature of Astringents; such as the Peruvian or lefait's Bark, Tormentil, Cinquesoil Roots, Crude Allum, Chalybeats, Ash Bark, Vitriolick Chalibeat Medicines, and fuch other things as operate by Aftringency. From these Observations we make a just Inference, That fuch Fevers are owing to the drooping and flaggy Spring of the fluid and folid Parts, and not to the pretended Obstruction of the Viscera. For accordingly we find, that your fliptick, bitterilh, and fornewhat spirituous Medicines, which corroborate and compact the folid and fluid Parts, enable them to make a powerful Refiftance to the coming Ferment that tends to raise a sebrile Heat in the Blood, and dextrously throw it out by the repeated Circulations of the thus corroborated Sieves of the Viscera;

VIII.

If Sweating be necessary, and does not appear upon the Administration of proper Remedies, let Blood, and twill break immediately; especially if the Stop was owing to an over-bearing Croud of Humours, and a stifling, as twere, in the Vessels. I know an Hypochondriack Person that's frequently feiz'd with a difmal Afthma, that e'en almost choaks him, and attacks him all on a fudden with a Differtion of the Belly, and a murmuring Wind rolling up and down: And whenever I am called to him, I order Bleeding immediately; which is scarce sooner over than a Cessation ensues of the Afthma, the Diffention of the Belly, and the Fear of imminent Suffocation. Repeated Experience has taught me, that the most obstinate convulsive Cholicks arifing from the Fury (as 'twere) of the Spirits, are speedily and successfully cured by Bleeding, and anodine Remedies extremely diluted: as also that sanguine Apoplexies (that is, fuch as proceed from the Stagnation of the Blood about the Veffels of the Head, and are accompany'd with a Redness of the Face, a Turgency of the Veins, &c.) yield to no Remedy fo readily as to the earliest Bleeding. Those who promiscuously fall upon Apoplexies, whether Sanguine or Pituitous, with Purges, Vomits, and spirituous Remes dies, without premising Venefection in the sans guineous Kind, ought to be reckon'd Madmen. I was once called to a Woman of 60 Years of Age, that had a Palfy of one Side, besides a Palfy of the Tongue, and cur'd her in three Days with the following Method: After drawing ten Ounces of Blood out of the Arm of the Paralytick Side, I prescrib'd the following Mixture: Take Water of Peony Flowers and Carduns Benedictus, of each 23 188 EST 16.5

three Ounces; Spirit of Sal Armoniac, twelve Drops: Powder of human Skull and Diaphoretick Antimony, of each a Scruple; mix and make a Potion to be taken off immediately: Let the whole Spine of the Back, and the paralytick half of the Body be anointed hot with Oil of Foxes mix'd with the Spirit of Wine: Let her hold in her Mouth a Gargarism of the Decoction of Miffetoe of the Oak, and Oxymel of Squills. By the Use of this Recipe, I say, she recovered in three Days Time, All these Observations are Evidence, that the above mention'd Difeases are owing to the crowding and penning up of the Humours or Spirits in any Part; which yields to no Remedy so readily as to Bleeding, either in the Part affeeted or near it; for of all the wonderful Effects of Bleeding this is the chief, that it fets forward the Blood that ftagnates, or has a Tendency that way, opens its Confiftency, if it be too compact, and restores it to its native Fluidity: For when the vital Fire has more room allowed it, 'tis rather thereby blown up than extinguished; especially if the Impulse of the Heart, which causes and keeps up the circular Motion of the Blood be continual and ftrong.

IX.

We come now to the fixth Article, namely, the Conversion of one Disease into another, of the like. or of a quite different Form. That this may afford some Light touching the immediate Cause, is plain from Ballonius Confil. 13. where he speaks to this purpose: Hippocrates order'd the mutual Succession of Diseases to be carefully minded, upon the account that many Symptoms happen in long tedious Difeases; which by vertue of a fallacious Similitude, impole upon even good and learned Physicians; and new Difeafes,

Diseases, like an upstart Offspring, follow upon, and fpring out of others. An Arthritick Illness is easily transformed into the Cholick; so that he who knows the immediate Cause of the former, must needs know of the latter. All Persons subject to the Stone are apt to have the Jaundice, and & contra; if therefore the immediate Cause of the one is known, the other cannot be loft. The striking in, or irregular Cure of the Scab or Itch, is followed by many unlucky Difeases; particularly, a spitting of Blood, an Apoplery, a Dropfy, lingring Fevers, &c. Hippocrates tells you in Epidem. That an Athenian coming to Mile to be cured of an ugly Itch or Scab by the Use of the hot Baths. was cured accordingly; but fell foon after into a Dropfy, of which he died. Semertus informs us, that this Case is frequently followed by a Fever and Blindness; and particularly in Prax. Par. 3. Self. 2, cap. 44. That a Boy having struck in the Scab with Liniments, was seized with Blindness and a Fever, of which he died, upon the Accession of an Epileptick Fit. The Itch is a good Sign, when it happens in a Quartan Fever; for foon after its Appearance the Quartan will go off, and the Itch it felf will disappear without the Use of any Remedies: Witness repeated Experience. He therefore who finds out the immediate Cause of the antecedent Disease, can't be ignorant of the Cause of the subsequent. For the Purpose: Upon the Consideration of the Itching, the Foulness of the Skin, the way of Living, and the Method of Cure, we conclude that the first or the immediate Cause of the Scab or Itch, is a sharp briny Humour, lodged in a viscid or thin Juice, and it is probable the Diseases that spring from the striking in of the Itch, are owing to the same Cause. You may read many Instances of the mutual Transmu-Ta

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278 The Practice of Physick.

tation of Diseases, in several Physical Authors; to which I refer the Reader.

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The Seventh Introduction to the Knowledge of the immediate or antecedent Cause of Diseases, is the Injury that the Parts and principal Functions fultain. The Palpitation of the Heart proceeds. for the most part, from some Impediment about the Heart; for in diffecting the Corple of fuch as dye of that Illness, we find in the Ventricles of the Heart, or the neighbouring Parts, Polypus's, Aneurisma's, Offications, great Clots of Blood, tartareous Matter, Worms, and the like. And particularly about five Years ago, I observed in the Body of a Man of 60 Years of Age, that died of the Palpitation of the Heart, a huge Aneuri [ma in the ascending Aorta, just by its Insertion in the Heart, and in the Cavity of that Aneurifma, a Polypus as big as a Goose Egg. Nor are such Impediments only found in the Palpitation of the Heart, but likewise in other Disorders of the Lungs and the Heart; such as an Allbura, an Intermillion of the Pulse, and the like. And here I must take notice by the bye, that repeated Diffection has taught me. That if these Disorders of the Heart proceed from an Organical Cause, namely, a Polypus, an Aneurisma, &c. they affect the Patient not by Intervals, but continually, the Pace is of a pale, or some other fickly Colour; and the Patient is molefted with other grievous Symptoms, that are near ally'd to a Dropfy. But if they are produced by the Acrimony and Irritation of a fluid Matter, they affect the Patient only by Intervals; and particularly when the Wind is Southerly, and the Mind disturbed with passionate Commotions; his Countenance retains its natural Colour.

Colour, and the other Symptoms are neither fo grievous nor continual: So that where-ever the first and repeated Symptoms appear, there must we fix the Seat of the Disease. The human Body is a Bundle of Fibres variously interwoven and corresponding to one another, which are bended this way or t'other by the Fluid that moves within, as by a Spring: And from thence proceeds that great Sympathy and united Confent of the Parts. In mentioning this admirable Confent and Sympathy of the Parts, I do not countenance the ancient Opinion of Vapours rifing, which the Moderns have fufficiently defeated; for I derive all Confent in the Body, either from the Vicinity of the Parts, as that of the Midriff and Pleura, the Bladder, the Intestinum Redum; or from a Communication of Vessels, such as that of the Veins, Arteries, Nerves, or other Veffels among themselves; or that of adjacent Parts, the Liver, for Instance, and the Intestines, by virtue of the Dudus Cholidochus; or else from a Similitude and Continuity of Substance, such as that general and truly wonderful Similitude and Continuity of all the membraneous Parts of the Body, by virtue of which, feveral things happen in a living Body that are almost incredible, and beyond the Reach of our Reason; informuch that Nature refusing to disclose its ways, conftrains us to a blind Submission. Granting this infallible mutual Confent of the Parts, I am truly of the Opinion, that in tracing the immediate Cause of Diseases, the Marks taken from fuch Parts as lie at fome mutual Distance. cannot deceive us under the Colour of Truth ; but will, in proportion to the Sedulity of our Enquiry, conduct us fooner or later, with greater or leffer Facility, to the Knowledge of what's a doing in the remoter and occult Confines of Nature especially if the morbifick Cause sets up its Stan-

80 The Practice of Physick.

dard in those Parts appointed for some publick Function, such as the Heart, the Lungs, the Brain with the nervous System, &c. which do always keep to the same Order and Kind of Symptoms, when they are in Disorder. This happens chiefly in malignant Fevers, the Source of which uses to reside sometimes in the animal, sometimes in the vital, and sometimes in the other Parts; which Practitioners discover, by considering the Disorder of the Operations peculiar to such Parts. So much for finding the Seat of the immediate Cause; as for the Investigation of the Nature of it, its accounted for in the foregoing Theses.

XI,

The Eighth Topick from whence we derive the Knowledge of the immediate Cause, is the Symptoms that either accompany or usher in the Difease; their Nature, Force, and way of Invasion, as well as their Remission or Heightning upon the Use of Remedies. Those who are seiz'd with a pituitous Apoplexy, are pale in the Face, and drown'd in a deep Sleep; their Pulse is low, and their Discase yields to Vomits and Purges, but gains Force from Bleeding, Upon these Considerations we conclude, that fuch Apoplexies owe their Being to somewhat that's viscid and gross, and of small Force, On the contrary, in a fanguineous Apoplexy the Face is flush'd, the Blood Vessels of the Head are extreme turgid, their Sleep is not profound, nor their Pulse so low: Bleeding gives them Fase, and Vomits and the other impetuous Remedies inflame the Diftemper. From this Series of Symptoms we may readily believe, that the Caufe of such Apoplexies depends upon the interrupting of the Course of the Blood, Spirits, &c. in the Brain, or the adjacent Vellels, where being stopp'd

they make an impetuous Shock. A Bilious Cholick is oftentimes attended with a Cellation of Speech, and a hoarse Voice, which sometimes continues during the whole Period of the Difeafe: And this same Hoarseness is observed in Bilious Fevers; whence we make a just Inference, That a Hoarseness and Cessation of Speech, in acute or fuch other Diseases, argues the Dependance of their immediate Cause upon the Bile, or upon sharp, volatile, and fulphureous Parts. This Speechlefness is no uncommon Forerunner of Epileptick Convulsions in a Cholick. Sometimes we meet with Pains that attack the Patient at fet times like Intermitting Fevers; in which Cafes you may rest assured, that the immediate Cause is not bred in the Part affected, but comes of a foreign Original: And I have fometimes observed, that when no other Remedy would do, a gentle Purgative exhibited about three or four Hours before the Invasion of the Pain, has dispelled it in a short time, especially when the Scene is laid in the lower Belly; nay, repeated Purgation is an effechual Remedy for any other Periodick Pains,

XII.

The latent Imposthumes of the Liver, that give way to no Remedies, discover themselves by unsufferable Pains in the Leg, or the Calf of the Leg. This Assertion is attested by several Authors, and particularly by Hollerius, Com. 2. ad Lib. 2. Coac. Hip. Fol. 348. His Words are to this Purpose; I was surprized twice or thrice with insufferable Pains in the Leg, or the Calf of the Leg, that neither Fomentation, nor Liniment, nor Cataplasm could remove. When the Patients died, I laid open their Legs, and there is sed out a whitish, pale, and light Pus, that lay upon the Intersices of the Muscles and

and was kapt in by the greater Vein; and in tracing the Place from whence this purulent Matter came, when I came to cut up the Abdomen, I found the Liver ulcerated and patrified. Those who are thus affected must needs due of it. V facetins made the fame Observation in Coac. Hip, as well as Baubinus in his Obferv. and Tab. Anatom. So much for the way of enquiring after the immediate Cause of Diseases upon which Subject I have touched, as far as my Weakness would allow, upon the noblest and most useful Heads, leaving the reft, for Brevity's Sake, either to my own future Adventures, or to the Diligence of Polterity, and in I sale has been as and I dive like Lidgest thing New gray in which Cathage of the

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A FTER laying down a History of Diseases. in a Description of the Phanomena and Caufes, our Historian must with equal Diligence apply himself to the Method of Cure, or the constant Indication taken from the repeated History of Difeases: And, to confess the Truth, the first Foundation of Practice is the Indications, upon the Detection of which, 'tis an easy matter to cull Remedies out of the Store-House of Nature; for the forriest Apothecary's Boy knows that Rhubarb purges, Antimony moves to Sweat, Hoglice provoke to Urine, &c. But when Purgation is feasonable, when twill be proper to raise a Sweat, and under what Cautions, that's a Question of another Kidney, the due Solution of which requires an aged Course of Use and Experience: For, as Hippocrates, Lib. de Arte, says well, Whatever is beneficial, proves fuch by vertue of the right Ufe and Application. This therefore thews the Vanity of fuch Authors, as crowd their Books with Forms of Recipe's, without taking the least notice of Indications; or if they do, 'tis only forme general Advance, and the Product not of fertile Nature, but of giddy Speculation, the God and the same The rower las sould

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mended in child or a distant If any thing in the Practice of Phylick wants to be corrected more than another, 'tis the common Indications; which being raifed upon falle Hypotheses, afford us nothing but the idle Whim of Speculation. The Galenifts, deriving the Caufe of all Diseases from their four Humours, are all ways harping upon the same Story, when they come to the Cure. For when they are called to a Patient, their first Endeavour is to find out the peccant Humour of the four, which at last they pitch upon, after many Questions and Arguments. The peccant Humour being thus determined, all their wife Views center in this, To prepare the peccant Humour for Evacuation, and to to carry it off accordingly; which they do not once or twice, but again and again in the same Disease; and fo run the Indications of all Difeases in a Circle (as 'twere.) To illustrate the Matter with an Example: They lay down an infallible Hypothefis, that Tertian Fevers take their Rife from the Bile; in pursuance of which, all their Indications are levelled at the Evacuation of the peccant Bile by repeated Purgation: And when all comes to all, we observe, though a great deal of bilious Matter is evacuated, the Fever increases, and inflead of a simple one becomes double; nay, the double

double Fever turns Chronical, or at last Mortal. After reading the Observations made by the Galenists about two Centuries of Years ago, I cannot express how sensibly I was affected with their supine Negligence, when I faw fimple Tertians turned into annual Fevers, by the repeated Use of Preparatives and Purgatives, and abandoned by the Physicians as incurable. Nay, the same was the Fate of the Quartan Fevers, and other Chronical Diseases. However, there are two things that sufficiently defeat the pretended Indication of evacuating the Bile in Tertian Fevers. The first is the late Discovery of the Peruvian Bark, and other artificial Febri-Fuga; which, if seasonably and prodently exhibited, do happily dispel all Intermitting Fevers from any Caufe whatfoever, without any Preparation or Evacuation of the Humours. The Second is daily Experience, which proves, that Intermitting Fevers are either duplicated or exafperated with grievous Symptoms, by the exhibiting of Purgatives in the Beginning; and that upon the frequent Repetition of these Purgatives, they become Chronical and Fatal. This Narrative of Tertian Fevers may ferve as a Pattern for the Indications of other Diseases, and a sufficient Instance of the gross Prejudices occasioned by a false Method of taking the Indications of Diseases. Now-a-days we cure many Diseases with the flightest Remedies, or by a mere Abstinence from Remedies, without any regard to the Influence of the four Humours in producing them.

M.

The modern Practitioners endeavouring to avoid the Rocks of the Galenists, have split upon greater themselves; for notwithstanding they certainly knew, from the Example of the Galenists, that

that Phylick divorced from Observation may perhaps be polished and licked into Form, but can never grow or be improved: Yet, to humour the Genius of this Age, they deduced the Caufes of all Diseases from the giddy Notions of Alcali and Acid, and put their Indications of Cure upon the fame Foot; contenting themselves with a bare universal or general Proposition, as being entirely ignorant what Acid produces any Disease, or what Alcali removes it. The Groundlesness of all their Opinions is manifest from daily Experience, which teaches us that our Conftitutions may be injured by a thousand things; and that every Disease depends upon a præternatural and peculiar Specification of the Humours, So far are the Causes of Diseases from being confined within the narrow Verge of four Humours, or that of an Alcali or an Acid. For there lies a just Charge against the bitter and sharp Particles, the relaxating and contracting, (to use the Language of the methodical Doctors) or the congealing and diffolving, the harsh, the falt, and a thousand other Kinds of Qualities. Nay further, some Diseases have no other Cause but the Alteration of the due and natural Texture or Configuration of the constituent Parts of any Humour, produced either by an external Cause, or the internal Agitation of the struggling Parts of that Fluid, or of the Solid; by vertue of which they acquire a new Motion, Figure and Polition. and so become the Cause of Diseases. And whatever is capable to controll that praternatural Texture, and retrieve the primitive Spring of the Humours, whether it is hot or cold, acid or alcali, or possessed of opposite Virtues, or administred outwardly or inwardly, you may still be affured that it will effectually remove such Disorders. Thus we find that in the way of Practice, one and the same Disease is equally cured by contrary Medicines

dicines and Methods, or by hot Remedies as well as cold. Thus according to Henrious Heer, the Spaw-Waters, which are well known to remove the Suppression of the menstrual Flux, are at the same time the most successful Remedy for moderating the Excess of that Flux. All these Arguments of Experience are further Motives to induce us to believe that Nature is the best Physician. And as good Aliment affords at once Matter for Life and for Death; so the same Motions of the Humours that gave the Disease, do, after repeated Circulation, prove the Authors and Guardians of Health. unless their regular Course be disturbed by the diforderly Methods of some Physicians, Now I am upon this Subject, I can't but acquaint you by the by, that if any one had an Itching to form a new fictitious System, and to make Medicines operate by imaginary Qualities, he would be equally happy in curing, and equally unhappy in killing, with those who go upon more solid Hypotheses. For tis not Hypotheses, but Medicines that perform the Cure; and that not fo much by any fenfible Evacuation, as by retrieving the primitive Spring of the Fluids or Solids.

Maria da y IV:

Many Diseases spring from a trisling Cause, and thereupon mustering up a dismal Train of Symptoms, are cured without any sensible Evacuation; such are the Bite of a Viper, the violent Disorders occasioned by the Smell of a Ship or the Sea Air, and sometimes reaching the very Agony of Death, the dismal Distempers occasioned by looking upon the Object of one's Hatred, the Diseases arising from passionate Commotions of the Mind, and an innumerable Train of such like Disorders; which are produced in the human Body without

without the Ingress or Egress of any visible Matter to foster them, merely by the Impulse of external Bodies, or a violent Sally of Imagination. As many heavy Diferies depend upon a triffing Caufe. that formetimes is invisible, and not introduc'd within the Body; so a great many considerable Distempers are cared in a Minute, not by any senfible Evacuation, but by the Production of fome new Change in the Polition, Texture, Figure, and other Qualities of the Humours that gave the Disease a Being. Such are the Cures of Quarter Fevers, or other Diseases accomplished by a sudden Fright, by the Application of specifick Remedies to the external Parts without any fenfible Evacuation, by the Change of the Air from one Climate to another, Sc. Of this last fort of Cure, I had a remarkable Instance lately, viz. A very good Friend of mine that never fail'd to have the Sciatica and the Piles in the Neapolitan or adjacent Air; and after a vain Trial of Remedies, is cured almost in a Minute, by coming into Campagnia & Roma, or to Rome it felf. The Chinese, and other Indian Physicians, cure Discases by burning with the Moxa, and pricking with a Needle; nay, they cure Intermitting Fevers almost to a Miracle, only by burning in the Ankle: Witness Will. Tenrine, in his Treatise de Arthritide. All this is more than fufficient Evidence, that our Constitution may be hurt a thousand ways, and that Diseases are both produc'd and cur'd after a wonderful manner, that's scarce perceivable by us. For as Hippocrates fays, 6 Epidem. Nature finds ways to it felf without Forethought, and does what's expedient without any Instruction. Upon the whole, itis a very imprudent thing in a Physician to confine the Causes of every Disease to the four Humours, to an Alcali or an Acid.

Pliny fays. We are ignorant of what we live upon, but to my mind, we are less acquainted with that which makes us fick: For the very first and immediate Minimum that produces Difeases, is truly incomprehenfible to us. But now, fince we are encompassed with such Difficulties, Whence can we draw out Indications of Cure? Why, I freely own that in fuch Straits we can only have recourse to the Testimony of our Senses; that is, after we have long and patiently observed how Nature demeans herfelf in the Production of a Disease, as well as in the Concoction and Separation of the peccant Humour, we may then establish a Doctrine of Cure nicely calculated to Nature's Footsteps, and still keep in view the Remarks we have made upon the Juvantia and Ladentia. In this Point, that Reason of which Physicians boast so much, must be subservient to the Empiric Method; I mean the Empiric way polished by Literature, fatigued by several Processes of Observations, and put upon Action by the Direction of the Mind: For the Helps of Theory do first raise, and then frustrate our Hopes. Who can deny, that after all the Anatomical and Physiological Inventions of this Age. we fall ffill short of the more solid Indications of Cure? And that Physicians are now more divided upon the adjusting of the morbifick Causes and Indications of Cure, than they were before these Rumours of Novelties were box'd about? The Practice therefore of curing Diseases must be promoted by Practice it self. This is confirmed by Dr. Sydenbam, the most diligent Observator we have fince Hippocrates: Speaking of the occult Causes of Fevers, he goes on to this Purpose; This Iknow

This I know from manifold Observation, that the above-mentioned Species of Diseases, especially the continual, are so very different one from another, that the same Method which cured your Parents in the Beginning of the Tear, will perhaps kill em towards the latter End of it. And again, not much lower, I have much ado to manage it so, that One or Two of those who first employ me, are not burry'd away before I can trace the Gemius of the Disease, so as to fix the Cure of it. In fine, considering this Obscurity and Inconstancy of Things, 'tis impossible to be led by, Theory to solid Indications; unless the Genius of the Disease be first learned by the Light of Observations, which set forth the various Motions and Tendencies of Diseases.

VI.

'Tis by virtue of this Observation, that I am taught to abstain from Purgatives and Diureticks in the beginning of acute Diseases, and to avoid Purges in the beginning of Intermitting Fevers: That I flight all the pompous Train of Remedies in the Cure of Fevers, and make it my whole Bufiness to mind whether the sebrile Fermentation is too dull and apt to coagulate, or too ardent and dispos'd to Dissolution; by which means the Concoction and Despumation of the peccant Matter will be thwarted: That I rouze a dull Fermentation by spirituous and volatile. Medicines, and on the other hand, when itis too high, check it with fixing and moistening Ingredients: That I persist in this Course 'till I am assured that the Feverish Blood is posses'd of as much Motion, as is requilite for a seasonable Despumation and Precipitation of the morbifick Matter, by such Passages as Nature finds convenient, viz. those f Sweat, Urine, Stool, &c. These, I say, and

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fuch other Measures I observe; not because Reafon and Speculation built upon Hypotheles has fuggeffed Advice to that Purpole; but upon the Account that both my own Experience, and that of the most famous Observators, has taught me. That upon the exhibiting of Purgatives in the Beginning, acute Difeafes are inflamed, and Intermitting Fevers turn presently continual, nay and mortal as well as tedions, if the Purges are repeated: For in the Course of Nature, I never faw a wholefome Crisis in the Beginning of acute Fevers: And Hippocrates in Ccac. Tays, Those Things which bring a Criss must not appear immediately. In the last Place, I pursue this Course because Experience teaches me, That the Cure of Fevers is never more happily compassed, than by keeping the Blood to its due Limits, so as to hinder it from being either too active or too supine, these being the Caufes that hinder the Concoction and Despumation of the morbifick Matter. 'Tis these Experiments, I say, that put me upon the taking of fuch Indications in the above-mentioned Diseases. TW make to make WIL .clo

To contract the Matter into a narrow Compass, we must know that the Indications of Cure can't be derived from a furer Fund than from the Symptoms that rage most for the Time, and are predominant above the rest; for those are the most open and naked Marks of the Genius and Force of the Disease. But in the mean Time, we must call to mind, that there are Four Things to be confider'd in every Disease; namely, the Disease it felf, the Caufe of the Difease, the Symptoms, and the Measure of Strength: And indeed the Physician ought to be so well acquainted with the Motions. Origin, Force, and other relative Circum**ftances**

stancs of all these, that he ought to make no pofitive Conclusions of the Indications, till these Four be attentively weighed and collated together, and Provision be made for the most urging Symptom. I must say that no Man can be so expeditious and dextrous in detecting the Indications of Cure, as he who having the Benefit of a long Practice, has made repeated Observations upon the principal Gemus of the Disease, and the various Ways of Invasion and Declension; especially if he has employ'd himself before-hand in the reading of the Authors that abound with Precepts and Cautions, fuch as those I recommended above. If to all these Acquisitions our Physician adds a fertile and masculine Soul, that's capable to display some uncommon Force in detecting the antecedent, concomitant, and obscure Motions of the Disease, the Motions which range very wide and fucceed one another; certainly this Man will make a folid Choice of Indications.

VIII

The Measures I have now laid down, are chiefly conducive in those Diseases, in which all Delays are pernicious, and in which the sharp-sighted Physician qualified with long Practice, and equipped with a sufficient Knowledge of the Vertues of Remedies, whether specifick or common, adjusts several Things very prudently, and quickly draws the Measures of the Cure from the minutest Circumstances; all which can scarce be fathom'd by Thought, or express'd by Words. On the contrary, in Chronical Diseases, in which the Phanomena are more constant and long-liv'd, the most certain Source of Indications is the Juvantia and Ladentia, and a just Explication of their Effects, taken chiefly from the Dissection of those

who dye of the respective Diseases. Here, by way of Corollary, we may fuggeft the Reafon why the most celebrated Practitioners, after the first View of the Patient, and a serious Survey of the Symptoms and Conditions of the Senfes, are capable to reach the Knowledge of fuch Things as are almost incomprehensible, relating to the Diagnosticks, Prognosticks, and Cure of Diseases; and that by fuch occult Ways, that if the Physician himself were put to it, he could not set forth that wonderful Quickness and Turn of Apprehension and Judgment, that ferves him in finding out and adjusting these Things. For this Reason I take the Method of Cure to be nothing elfe but a practical, adequate, and fagacious Judgment; that is to fay, I am of the Opinion that the Springs of all these wonderful and occult Things arise only from a confummate Practice, by which a Thousand Differences of Things are fet in a clear Light in a Minute. notwithstanding that the signs of Diseases use to be various, uncertain, and general,

CHAP. XI.

Of Specifick Remedies, and their History.

SECT. I.

Here being so great an Affinity betwirt the Remedies and the Indications, we shall never do any Thing to the Purpose in the Cure of Diseases, till those two are joined in a closer Alliance, than has been hitherto allotted them. But after all, notwithstanding that Indications without Remedies, and Remedies without Indications, are lame

lame Things; yet, to speak the Truth, 'tis only the Remedies that perform the Cure: And though these Remedies may seem to be given without an Indication, yet the Event gives us sufficient Intelligence of the true Indication. This is manifelt in the Practice of the Empiricks, who despising the Methods and Indications of the Rationalifts, cure a great many Diseases by the Use of specifick Remedies, as they call 'em. For a Second Proof. let's consider that Remedies are as successful when exhibited by the Ignorant, upon a true, and fometimes a false Indication, as when given by the Skilful: And on the other Hand, Indications without Remedies, give no manner of Relief. 'Tis plain. therefore that fola Remedia fanant, the only Thing that cures is the Remedies: Upon which Confideration, we must own that our Profession wants a History of Remedies, brought to Light, not by a pleasant Luxuriancy of Thought, but by hard Labour and aged Observation; such Remedies as are constant, fortified with the Method of Prescription! and calculated to every Disease in a specifick and almost infallible Way. Such are, the Jesuits Bark in Agues, Whey in a Dysentery, Mercury and Sarfaparilla in the Pox, the Jovial Salt or Bezoardick in the Hysterick Illness; the Tincture of Amber extracted with Cinnamon-Water, and qualified with a small Quantity of the Syrup of Cinnamon, in Pains after Child-Birth; the acid Spirit of Sal Armoniac in the Yellow-Jaundice; and the like. was ser to reguld with as taguo port.

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The same Measure the Historian observes in illustrating the History of Diseases, Causes, Symptoms, and Indications; the same Measures, I say, must be observed in this History of Remedies; In going about which, we must consult the Oracles of

the Senses, and the Observations made upon the Tuvantia or Ladentia, or the Event of Remedies and draw from thence Cautions and flanding Precepts, relating to the Use, Quantity, Time, and other Conditions of Remedies. To tell me that Milk is a specifick Remedy to correct the Acrimony of the Blood, will give me but little Light in the Course of Practice; unless I be likewise informed by Authors what Method, Cautions, and Precepts. I ought to observe in prescribing it; and be advised, for Instance, that 'tis fafer to give Milk in Spring and Autumn, than in Summer, in which feafon its Whey is of good Use, that during the Use of Milk, Wine and acid Things must be avoided; that Milk is not proper while the first Passages are crouded with acid Humours; that it ought not to be exhibited in a Loofeness, occasion'd by the Crudity of the Stomach , that 'tis well ry nocive in the Diforders of the Nerves and the Head. Pursuant to this last Caution, I was called lately to a very learned Man, that upon taking large Quantities of Milk, and avoiding all other Food, for about Twenty Days, was feiz'd with a dismal Differtion of his Mouth, accompany'd with a painful Distention of the Muscles of the Neckl and almost the whole Body. I tried several forts of Remedies, and recover'd him in Two Months Time Milk is an Enemy to the Head and the Nerves, it is friendly to the Breaft, and raifes Wind in the Abdomen. To prevent the fouring of Milk in the Stomach, you ought to mix Sugar or Honey with it; and if it does turn foure, you must not presently reject the Use of it, but exhibit testaceous Powders for Two Days, to abforb the Acid, and then return to Milk; and if after all it still foures or curdles, you must inter-lace it with testacous Powders now and then. After the taking of Milk you ought to fit ftill, or walk very gently taking

taking Care to avoid Sleep, and the immoderate Labour either of the Body or Mind; for by such Means it rises in a crude State to the Head, and disposes it to divers Diseases. These and other Cautions you ought to know, before you exhibit Milk; Cautions that Practitioners sound out, not by racking their Brains, but by a long Observation of the Events of Remedies. He who sets about the Use of Milk without such cautionary Instructions, is equally Criminal with those who chuse to walk in the Dark, without striking a Light, or staying for Day-Light.

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What we have faid of Milk, must be applied to all other Remedies: for the innumerable unlucky Accidents that fall out, are owing not fo much to the Quality of the Remedy, as to a false Indication, or the Defect of Cautions and Precepts relating to the use of it. In Fine, the best Remedies confirm'd by the best Cautions, are all in all in the Cure of Diseases; and hence it comes to pass that fometimes Men of ordinary Learning and e'en Quacks will baffle the oftentative Rationalift, only by Virtue of some approv'd Remedy, or some folid Caution. Purgatives are the Conquerors of many Diseases; but the imprudent Use of 'em in the beginning of acute Fevers, and the Repetition of 'em in Agues, is still in Vogue, to the great De-triment of Mankind. Not long ago an ignorant Practitioner prescrib'd a Purge in the very beginning of an Acute Fever, and omitting Bleeding, repeated the Purgation on the Seventh Day: The Patient thus reduced to a deplorable State, voided by Stool about Four Pints of clotted Blood on the 15th Day, and so turned Hectick. Now, I leave it to the Judgment of the Wife, whether the Blood thus voided, was not an Argument that he ought to have been Blooded, and not Purged in the beginning. In June, 1695, a Woman at Rome of Forty Years of Age, that had been ill of a flow Fever, and a Scirrhus in the Stomach for a Year and a half, fell into a Dropfy upon the use of Steel that an old Physician had prescribed, and died in a Month's Time, For some Days before her Death, the had such a strangling in the Throat and Gullet, that the thought to be Choaked, and could not put down any Eatables. Having opened her Corps, I found the whole Substance of the Stomach Scirrhous, and the Womb in like manner Scirrhous. with a small quantity of stinking blackish Water in the Cavity of the Abdomen. "Twould be a tedious Talk to run thro' the innumerable Inftances of Damage done to Sick Persons, by the use of Remedies not guarded with due Cautions and Precepts, as that of Steel in Scirrhus's of the Ventricle. and perhaps of the other Parts, and of Purgatives in the beginning of ardent Fevers.

IV.

I intimated above, that every Disease depends upon a Specifick and peculiar Exaltation of the Humours, or else upon the Exaltation or Specification of the principal Disease, to which it retains, and that all these Specifications of the Humours are subject to Nature's Laws, like the other Sublunary Bodies. But I must consess I am at a loss to tell you wherein consists that Specification or minute Mixture of the morfibick Parts, that exalts every Disease to its respective Species. 'Tis possible the Succession of Ages may make such a Discovery, if so be that the wifer Practitioners apply their Meditations to Practical Things, and are not so over-fond

of Theory, as to neglect Practice. In the mean Time, 'tis a certain Truth, that both Chronical and Acute Diseases will be happily conquered by that Man, that either by Chance, or by a long Thread of Practice, lights upon a Remedy that's able to stifle and fink the Species of the Disease. And for a just explication of this Matter, there's no occasion to call in the first or second Qualities, as some have done; for befides that the Essence of the Disease does not confist in such Qualities, we see frequently that feveral Difeases are scarce moved by exhibiting of Remedies, whether hot or cold, or moift, or of the other Qualities; unless we light at last upon a Remedy that choaks the Distemper specifically. Hence it comes to pals that many Diseases, commonly call'd Hot, are cured by hot Remedies, cold Difeases by cold Remedies, and so on; nay, that some Diseases are cured by Remedies that according to our way of thinking, are entirely contrary to Human Nature. Thus we fee a great many Sick People cured, by the greatest Errors in the way of Eating and Drinking, or by the use of such Remedies as are directly opposite to their Nature. We conclude therefore, that all thefe Things proceed from the above-mentioned Specification of the Humours, and not from Qualities acting in opposition to one another,

V.

This necessity of Specifick Remedies, seems chiefly to fall upon Chronical Diseases; for considering that these depend upon an Indigestion and Grossness of the Humours, and that in such Cases the Solid Parts are more frequently faulty than the Fluid, Nature born down with the long Duration of the Illness, cannot accomplish the Concoction and Depuration of the Morbifick Matter, without

a Remedy be exhibited that speedily extinguishes the Morbifick Species, or Nature be corroborated by Spirituous Restoratives, and Bitterish Med'cines, so as to be exhilarated, and enabled to shake off the morbifick Yoast. Pursuant to this Thought, I have observed in the Course of my Practice, that the Modern way of prescribing Spirituous, Volatile and Active Remedies is very ferviceable in Chronical, and highly prejudicial in acute Difeafes: For the Fermentations of the latter being quick and over active, without any Disorder in the folid Parts, Nature, either of its own Accord, or prudently affifted by Art, performs the Concoction and Despumation of the morbifick Matter, with sufficient Quickness, and finks the Species of the Disease by due Evacuations. But if acute Diseases derive their Origin from the occult Qualities of the Air, or a Change of Weather; there is no furer way of looking for Remedies to stifle that new Species, than the diligent and repeated Observation of what gives Ease, and what exasperates: Accordingly we fee some Remedies that Cure Epidemical Diseases, are hurtful in the same Epidemical Discases that happen in another Season of the Year.

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Now, that I am speaking of acute Diseases, I must take Notice by the bye of the grand Mistake of those, who throw in such a Crowd of Med'cines upon acute and inflammatory Difeases, till Nature not knowing where to turn her felf, and variously toffed, what with the violence of the Disease, and the load of Medicines, is forc'd at last to give way. and fink under the Burden. Indeed 'tis no wonder that such is the Consequence; for acute Diseases, especially acute Fevers, are frequently cur'd of themselves, as in the Case of the Poor and the Country

Country People, by reason that the same force and impetuousness of the Humours which raised the Fever, disposes them to a Precipitation of the Morbifick Matter at the fet Time of Concoction; and this Precipitation being the Work of Nature, its Regular Motions ought not to be perplexed, and thwarted by fuch a frequent or immethodical Administration of Med'cines; or if it is, neither does the Fever leffen, nor the Crifis succeed at the appointed Time, but the Patient struggling with a doubtful Case, either dies or falls into Chronical Difeafest Continue Confittetion Variety at of the Bolly, Age, MV Mry, Astech of the

Practitioners Ive under great Prejudices, as to the use of Remedies, in Acute and Chronical Difeases; some of which I shall now hint at. A great many use that long Train of Remedies, upon this Confideration, that among fo many, one will certainly be found that's capable to difpel the Difeafe. But how flupid is this Plea? I can't forbear faying upon this Head, what Appius Cacus told the People of Rome, when they were thinking to clap up a Peace with Pyrebus; I have bore, fays he, with a great deal of Patience, my Blindness for several Tears; but now I wish I were likewise Deaf, that I might not bear such base Motions, &c. Some make Specious, but Fallacious Degrees of Med'cines, calling some great, others flight; and begin at first with what they falfly take to be the flighter Sort, arising by degrees to the Greater, if the Disease does not give Way. With this View, they preferibe, especially in dangerous Cases, first of all a Purge, then Bleeding, or e contra; then they inject Clysters, and exhibit Syrups, and continue to repeat all in a Circle as 'twere, till they observe that the Disease either does not decline, or grows worfe; upon which they have Recourse to their great Remedies, namely,

large Bilitering-Plaisters, Scarifications, hot inflaming Applications, stronger Purgatives, and a great many such Things: And if these do not compass the End, they come at last to wait for the Crisis, and are not asham'd to expect a Crisis from Nature, after they have tortur'd her with such butchering Med'cines, and perplex'd her with such a contrary Method.

VIII.

The Forms of Prescription must be vary'd, purfuant to the Variety of the Constitution, the Habit of the Body, Age, Country, Antecedent Caufes, &c. Aperient Med'cines, for Instance, are of general Use against all Obstructions; but the way of exhibiting must be diversify'd according to the variety of Circumstances: for a Liquid Form agrees best with some a Solid Form with others. &c. I tended lately at Rome, a meagre thin Man, that after a double Tertian, was mightily troubled with a flow fort of Fever, and Swellings in his Neck. His Tongue was Slimy, his Belly Coffive, his Urine high Colour'd, with Watchings, &c. Upon taking a Cachectick Powder of Sulphurated Steel, Cinnamon and Sugar, he grew worfe, and his Belly was diffended with Wind. Upon a mature Confideration of these Symptoms, I prescrib'd Aperitives of the depurated Juices of Succory, Borrage, and Sow-Thiftle, the repeated Use of which recover'd him perfectly. On the contrary, I prescrib'd the same Juices to another Patient, that was likewife Lean and Meagre, and though they carry'd off his lingring Fever, yet the continued Use of them threw him into prodigious Night-Sweats, which at last he got clear of, by discontinuing the Use of the Juices. I am and a manufacture of the the set is or in world a up-

Tis in vain to ftrut and fourn in Defiance of the Power of Death, or to repulse the Violence of Difeases with the Awe of Disputes. Sola Remedia Sanant: Whereever the Science is weak, 'tis only Remedies that keep up its Majesty and Weight. I take it, therefore, nothing can be more conducive to the Health of Mankind, than Physicians their applying themselves to make daily Discoveries of new Remedies, or guard more effectually these we know already, with folid Precepts built upon Obfervation. A Phthifick arifing from an Ulcer in the Lungs, is commonly branded as incurable, upon the Plea that the Ulcer is internal and occult. and cannot be cleanfed like other external Ulcers. But why do they not make it their Business to find out the true Situation of the Ulcer, and make an Incision accordingly between the Ribs, to the end that proper Remedies may be conveyed to it? For my Part, I know no Reason why that should lie neglected. About Seven Years ago, when I was at Padua, a Man received a Wound in the Right Side of his Breaft, that reached to the Lungs, and employing an able Surgeon, had an Incision made between the Ribs to the Length of Six Fingers Breadth, in order to discover the Situation of the Wound in the Lungs; which was perfectly cured in Two Months Time with Vulneraries apply'd with Tents and with Syringing. Now Practitioners ought to use the same Piece of Diligence in Curing a Phthisical Ulcer in the Lungs, lest the Scroll of incurable Diseases should grow too long, to the infinite Difgrace of the Profession. Believe me, Gentlemen, aifiduous Thought and Use improves and whet's the Mind; but Sloth and Despair breaks its Edge.

X

If in any Case, certainly in the Practice of Phyfick we ought to know much and do but little, efpecially in curing very acute or complicated Difeafes: and to stifle that fatal Prejudice of some Patients, who fancy that Diseases are never well cured, but by great and numerous Remedies, and either despile or distrust simple and cheap Prescriptions. Oh! the Ignorance of the Vulgar! How many Men worn out with the long Tyranny of Difeases, and the frustraneous Use of Remedies, have at last, by committing themselves to Nature, quickly recover'd a healthy Countenance and a free Respiration? How many have been cured by Negligence or Indulgency, who had otherwise fallen a Sacrifice to the Hands of the Learned? History is Evidence of the firm Health of the first Inhabitants of the World, who neither confulted nor courted the Profelfors of our Art. Let me therefore conjure at once the Ignorant Vulgar, and the Froward Phyfician, to contract these Forms of Remedies, for oftentimes the Repose of the Bed, retiring from Bufinels, and even an Abstinence from Remedies, cuts the Sinews of the Distemper, that the frustraneous Ufe of Remedies would have inflamed. entitles to discover the Singlian of the

the Lungs , IX ich was perfectly caned to the Turke with Vulneragies applyed

Our Historian's remaining Talk is to enquire how the Remedies operate upon us: But in regard this is a very deep Point, and lies at the remotest Distance from the Senses, 'tis the Business not of one Man, but of a whole Society of Physicians: For to illustrate that Subject, there's a Necessity of taking in many Things from Chymistry, from the Mechanicks, from Anatomy, the Principles of natural

tural and experimental Philosophy, &c. I own indeed, that upon the repeated Meditation and Experience of Physicians, the Effects of some Remedies are at this Day better known to us, than they were in former Times to the Ancients: And 'tis to be wished we could say the same of all. But such is the Difficulty of this Enquiry, that Nature does with Remedies, what a Fellow in a Ditch does with a Board that's reach'd him by his Companions; for in order to get out, he lays the Board fometimes to the Right, fometimes to the Left; one while he lays it under his Feet, and another while fets it against the Wall, and so chops and shifts about till he gets out. When we exhibit a Remedy. Nature does fo turn it about, as to make use of it sometimes in raising drooping Fermentations, in separating the Nocive, depreffing the Volatile, and difentangling the tenacious Humours; and thus by a fecret Art, best known to its felf, it disposes the Remedy fo as to answer its various Indications.

CHAP. XII.

A Centaur, or a View of the Paradoxes of Modern Physicians in deriding Crisis's, Critical Days, &c.

SECT. I.

Mong the other Abuses that have crept into Physick within these few Years, we can't but take Notice of the Derision of Crisis, of Critical Days, of the Motion of Diseases by odd and even Days, and fuch other Observations as were made by the ancient Family of Physick, to the unspeakle Benefit of Mankind. Now there are Two Things that tempt our Upstarts to contemn this

Sedulity of the Ancients. One is the Preposession occasion'd by the Books that come out now-adays in Shoals, in Opposition to the Wisdom of the Ancients. The Mind of the Reader being once tainted with that Leaven, takes all the ancient Politions to be false; or out of Complaisance to the Genius of the Age, derides 'em most filthily. The Second is the common way of curing Fevers, which being speculative, fallacious, and various in Pursuance of the Variety of Hypotheles, can't but oppose or disturb Motions of Nature in the Production of a Crisis, and fo the critical Motions of Nature not answering Expectation, the whole Doctrine is branded for an idle Whim. But to speak to the Purpose, and to retrieve the ancient Splendor of this Doctrine, which is the chief Foundation of the Cure of Fevers: The Deriders themselves acknowledge that the Blood is a fermenting Liquor, and when feverish, or otherwife disorder'd, is subject to the same Rules of Crudity, Ebullition, and Depuration, with other fermentable Liquors. Now, in these Liquors, Nature has established a Law, that each of them shall accomplish the Motions of their Fermentation and Depuration in a determin'd space of Time; and we find that this Law is exactly observ'd: For the Time that Stum spends in performing its Depuration, is different from that requir'd by Ale, Cyder, and other Liquors. The same Remark holds in Fruit, each of which comes to their Maturation in a determin'd Number of Days; and 'tis in vain to offer any Artifice to make Fruit, or other fermentable Liquors, accomplish their Maturation before the set Time of Nature: for fuch Violence makes 'em corrupt, rather than ripen. Of ervations as mere

Since the Feverish Blood agrees with other fermenting Liquors in feveral Circumstances, I see no Reason

Reason it should not likewise agree in performing the Depuration and Concoction of the peccant Matter, in a fet Interval of Days or Months: Especially confidering that Hippocrates and Experience are Evidence that simple Tertians go off of themselves in Seven Rounds, an Ephemera in 24 Hours, a Systocha in Four Days, the particular Fits of Fevers in a fet Measure of Hours, and so on. Nay, so confant is the Order of Nature in accomplishing the Concoction and Depuration of the peccant Humours in a fet Measure of Time, that some Fevers hold out against all Med'cines whatsoever, 'till fuch Time as the Space allotted by Nature for the Despumation is over; nay, the unseasonable and indifcreet Exhibition of Purges, Febrifuga, &c. not only exasperates or duplicates the Diseafe, but likewise paves the way to Death, by vertue of the great Confusion and Hurricane it occasions in the Humours, in thwarting the regular Motions of Nature. This Remark I have made frequently in acute and Intermitting Fevers.

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This Purgation of the feverish Blood at a set time, is called a Crifis, as being a folemn Effort of Nature, by which, after pailing the Rounds of Crudity and Ebullition, the peccant Matter is expell'd. In the Country; and where Physicians are not employ'd, we meet with a pleasurable Instruction, in seeing these Crises or Despumations of the peccant Matter perform'd by the way of Sweating, of a Loofeness, of Urine, and such other natural ways, and finish'd with a regular and orderly Motion. Hippocrates, and his Countrymen the Grecians, being aware of all this, did To religiously observe these Motions of purging Nature, that in the Cure of Fevers they prescrib'd

but few Remedies, for fear the unleaforale Use of em should disturb the Government of the internal Sovereign. In the Cure of Fevers, particularly those call'd Acute, Hippocrates us'd but very few Remedies; and abating for a gentle Vemit, Clyfters, or the like, which he was fore'd to give in the Beginning, he used nothing in the Progress of the Difease, but only a Ptisane variously contriv'd according to the Genius of the Difeale; and leaving the reft to Nature, expected a Crift with Patiente and Watchfulnels; as it appears from his Book de Dista acut.

IV.

Tis no Wonder that Crifis's do not succeed nowa days either to frequently or to perfectly, as they did of old in Greece; fince Physicians either not knowing, or difproving the Greeian Meafures, murder their Patients, in a manner, by prefcribing from the Beginning to the Declention of the Difease Purgatives, Diaphoreticks, Bleeding, and spirituous Remedies; and acting both imprudently and unfeafonably in their other Measures; infomuch that the Humours thus distracted by the divers seditions Motions of Remedies, can't possibly compals a critical Despumation at the Time appointed; but being tols'd in eternal Confusion, terminate in præternatural Translations instead of a perfect Criffs; fo that the Rules handed down to us by the Ancients, with reference to Criss's, Critical Days, and the other Motions of Nature, are not observ'd in the Course of Fevers. But 'tis alledg'd that evacuating Med'cines are necessary in the Beginning, to the end that part of the peccant Matter being thus carry'd off, the Disease may be thereby weakned, and Nature may apply it self more firenuously to the Concoction of the reft.

This Observation goes against Experience, in regard that Evacuations perform'd in the Beginning, and while the Disease is yet crude, are frequently suspected and dangerous, and are unconcluding Griffs's, as Hippocrates fays; for they are fo far from impairing either the Difease or its Symptoms, that they serve to exasperate 'em; it being not the due Separation of Nature, but the Force of Irritation that gives rife to the Evacuation. Since Nature therefore never moves crude Matter in the beginning of Difeafes, or while it is yet blended with good luices, doubtless such an Attempt is very unbecoming in Art, the Interpreter and Minifter of Nature. When any Physician, either thro' Ignorance, or from Spite to an opposite Sect, makes fuch an Attempt, the stronger the Purgatives, Diaphoreticks, or other Med'cines are, the greater Confusion will ensue in the Humours; and for that Reason, such Med'cines will make but a small Evacuation; or if it be large, 'twill tend to the Detriment of the Patient by inflaming the Symptoms, and either prolonging or adding a mortal Sting to the Diftemper. On the other hand, if the same Med'cines are given, though in a finall Quantity, towards the End of the Concoction, they make not only a copious Evacuation, but such as pacifies the Symptoms, and eases the Patient. But after all I must confess there are some Fevers in which the peccant Matter ought to be expell'd by Sweating, or other more natural Ways, without flaying for a Concoction, by reafon of a concomitant Malignity that disposes the Blood to a fatal Coagulation, and accelerates Death by staying longer in the Humours; or by reason of their being produc'd by bad Food, or fuch other Caules. In this Class we recken your epidemical, contagious, and malignant Fevers; in which all Delays are permicious, upon the account that X 2

that they are wont to carry off the Patient very speedily. Some will tell you that Purgatives are necessary in the Beginning, in order to dislodge the Crudities of the first Passages amass'd by oversceding, and surnishing Matter for the Disease to work upon. But be it known to these Gentlemen, that the Crudities of the first Passages digest of their own Accord, or rather are concocted by the exhibiting of stomachick Med'cines, and such as whet and corroboate the digestive Force of the Ferments; and not by the imprudent Use of Catharticks, which convey them more effectually into the Mass of Blood, and either heighten or feed the Distemper: So that even in this Case, Purgatives are improper in the Beginning.

these properties in the contract of the party of

Though the Order of Nature in bringing about the Effects of Things is constant and perpetual. yet it uses to be so thwarted by Opposition, that its Method varies in Pursuance of the Variety of the Obstacles it meets with. This Truth is verify'd to a fignal Degree, in the Cafe of Criss's ; for in travelling over Italy and Dalmatia, and making close Remarks upon this Head, I learn'd that tho' Crifis's are the conftant Motions of Nature, yet they vary in Proportion to the Variety of the Method of Cure, the Season of the Year, the Country, Way of Living, Constitution and Age of the Patients, &c. In Winter, both the Chilness of the Air, and the Use of groffer Food, have that Influence upon the vital Juices of the Body, that in that Season they are somewhat ropy and unqualify'd for quick Motion; the Mass of Blood being at the same Time crowded with Impurities, by reason of a scanty Transpiration. Now, the Fevers which happen in this Season of the Year,

and while the Blood is thus dispos'd, require a long Interval of Time for accomplishing the Despumation of a perfect Crifis; nay, the above-mention'd Crowd of gross and heterogeneous Particles, puts the Humours into a mighty Confusion; infornuch, that they can hardly reach the regular Despumations of Nature. In that Seafon Fevers are likewise less acute, and less ready for a speedy Despunation, than they are in Summer. For the fame Reason we find, that in the Fenny and Northern Countries perfect Crisis's are seldom met with according to the Attestation of the Germans, and of the Phylicians of other cold Countries. Now, in fuch Cafes, we must have Recourse to Med'cines that have some Heat in 'em; to digestive and corroborating Med'cines, which exhilarate Nature, fo as to excite fuch a Motion in the Blood, as is requifite for going thro' the Depuration perfectly, and at the fet Time. In Spring and Summer, we find, that the Poor and the Country People, who feldom trouble Physicians, are cur'd in a few Days of acute and inflammatory Diseases, by Virtue of a healthful Crihis made by Sweat, Urine, or Stool; and that without any other Remedies but Bleeding, (if there be Occasion) a thin Diet, and diluting Ingredients, calculated to the Heighth of the Diffemper. For the elastick Force of the Air, and consequently the insensible Transpiration, being increas'd in Spring and Summer, the Humours are thereby render'd more nimble and pure; so that the morbifick Dross that is blended and boil'd up with them, is fooner difengag'd, concocted, and expell'd by subsequent Crifis's. The fame Parallel will hold between hot and cold Countries, a hot youthful Constitution, and a moist aged Temperament, &c. confing upon the

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nal while the Blood is they dipos d, require a long

For the same Reasons, the Crisis were regular in ancient Times, in Greece and Alia , for the Air of those Countries lying to the Eastward, and being very pure and thin, not only the Vines and the other Fruits of the Earth come to a speedy Maturation, but even the Mass of Blood, untainted with gross and impure Particles from the Air, and possels'd of a notable Agility and Purity, is sooner clear'd by the natural Crips's of the morbifick Particles, that raise it to a febrile Effervescence, than it could be in a gross, marshy, and cold Air : So that the Heat of the Climate, and Season of the Year. and the Thinnels and Purity of the Air, are an Argument of quick and perfect Crific's in acute Difeafes. But all these Advantages will be of no Use. unless we follow the Method of Hippocrates; who being taught by long Experience, that Nature is the best Curer of Diseases, especially such as are acute, prescrib'd but very few Remedies in the Beginning of fuch Diforders ; and when the Diftemper tended towards the Heighth, laid all Remedies aside, (provided the Genius and Malignity of the Disease allow'd it) and leaving all to Nature, waited fecurely for a Criss: But our modern Practitioners, either forgetting or contemning such Precepts, not only fatigue the Patient with repeated Forms of Remedies during the whole Period of the febrile Accension, but turn the Disease, that of it felf is favourable and mild, into a chronical and mortal Illness. of the defense state of T. Addition

and cold Countries of holl out that Conferences con

I may fafely fay, without infringing upon the Measures of Modesty, that I have oftentimes cur'd inflammatory Fevers, especially those which accompany

company the Small-Pox, by Bleeding, and a thin Diet, with a prudent and feasonable Use of diluting Med'cines : And when I pursu'd this Method, I never had a Patient ill of the Small Pox, that dy'd under my Hands. In mentioning Bleeding as Part of the Cure of the Small-Pox, I only meant, that I use it when the overbearing Heat of the Fever, the Impulse of the Humours upon the Head, or other Vifcers, and fuch like Symptoms do require it. I observe the same Method in the other continual and acute Diseases; for in the Beginning of such Disorders, I prescribe such Remedies as are sufficient to keep the boiling Blood within the due Bounds of Fermentation : But when the Disease moves towards the Heighth, I look on with Attention, and leave the rest to Nature, depending upon it for Advice, as to what Course I must steer, in expelling the concocted and divorc'd peccant Humour. You can't imagine what Pleasure I have had, after the Pursuit of this Method, in seeing the febrile Fits. fucceed by gentle and friendly Turns, and run their Rounds in the appointed Order of Nature; in feeing the feverish Ebullition carry'd on in a natural Order, without the Perplexity of furious Symptoms, or the unfeafonable Commotions of Remedies; in feeing the regular and finish'd Course of the Crisis's or Depurations of each Fit, as well as the general Defoumation at the End of the Disease: But, on the other hand, when Nature was teaz'd and thwarted with the continual Use of Remedies, I always observed that every Thing grew worse and worfe.

The End of the Second Book.

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DISSERTATION

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Anatomy, Bitings,

AND

Other Effects of the venemous Spider, call'd, TARANTULA.

The PREFACE to the Reader.

A LL the Authors that writ of the Tarantula, have either gone upon Hearlay, or coin'd several Things at Pleasure. None of 'em ever was in Apulia, (alias Puglia) where that Creature chiefly displays its Venom; abating for Epiphanius Ferdinandus, an Apulian, that added to his practical Observations some Histories of Persons hit with the Tarantula. This Province being therefore untouch'd, or only made known by some general and confus d Hints, I chearfully took up a Resolution, Two Years ago, of writing upon the Subject; to which I was much encouraged by the ear-

The Preface to the READER.

nest Desire of Joh. Jacobus Mangetus. a noted Prast tioner of Switzerland; who acquainted me, by very civil Letters, that a just Account of that Matter would give great Light into the History of Inseas, and the general Nature of Poisons; and withal, that if I would undertake it, he would put it into his Bibliotheca Medico-Practica. In Compliance with the Request of my Learned Friend, and with a Design to gratify the Republick of Letters, I then writ an undigested and confus'd Account; which now, upon mature Consideration, is presented to the Reader in a more regular and me-thodical Order, with large Additions. Here you will find, that in Pursuance of my wonted Custom, I keep close to Observation and Practice, and always allow them the Preference. If you find that sometimes I grovel on the Ground, and do not affire to much Reasoning, in treating of the Effetts of the Tarantula, and the Remedies that cure its Poylon; impute it to my natural Timorousness, which makes me always very cautious of outting the right Thread of Nature, by unlearned or unjust Ratiocination; that baving occasion'd many Errors in the Way of Phylick, as it appears from those Authors who fall in with that Prejudice. After a due Survey of the Nature of the Poison of the Tarantula, and its Analogy with other Difeases, I take in a great many Toings relating to the Mechanical Dostrine of Mufick, Poison, and Dancing. I have likewife given a short Account of the Discoveries made upon the Eggs of Oyfers, and the genuine Nature of the Serpentine Stone, call'd Cobra de Capelo, which is cry'd up for extrading Poison. In fine, whatever I have faid upon thefe Heads, I Jubmit to the Judgment of the Learned, and all of . Babbi sues and the Dinocti

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CHAP. I.

The Etymology of the Name, and the several Sorts of Tarantula's.

A Tarantula is a venemous Spider, fo call'd from Tarentum, an ancient City of Magna Gracia, upon the Ionian Sea. Those who are once bit by it, are never quite cur'd of the Venom; for it revives every Year, and occasions a long Series of Evils, which would be very annoying to the Patients, if they did not take due Care of their Health by Dancing and Balls. Animal is call'd Tarantula; not that 'tis more virulent at Tarentum than in the other Countries of Apulia; but, perhaps, because in the Time of the Grecians and Romans, that City was more noted and more frequented than the reft; to that the Instances of Persons bit by this Spider, were more numerous there than elfewhere; and thereupon the Animal derived its Name from the City. The Name of Armens, or Spider, is common to the Phalangium, the Tarantula, and the Tetragnathius. Pliny reckons up Eight Species of Spiders, Lib. 29. Cop. 24. Avicennas Twelve, Lib. 4. Sen. 5. Trad. 5. Cap. 5. and Four more, Cap. 9, 10, and 11. But upon this Head you ought to confult Aldrovandus, the Learned Lyster, and the other approved Authors. As for my Part, I chuse for Clearness Sake to divide Spiders into the Octonoculi, or those of Eight Eyes, and the Binoculi, or those of Two; which differ from one another in Magnitude, Subftance, Colour, Feet, Stings, the Number of their Eyes, &c.

CHAP.

The Tarantula is a Species of the Octonoculi, and of this I mean to give a short but curious Tis true, fuch a History may Description. feem to be of small Importance to the Practice of Physick, as being confin'd to the Inhabitants of Puglia; but at the same Time it affords great Light to the difficult Province of venemous Difeases: For a due Parallel between the Symptoms of the Tarantula Poylon and those of other Sorts of Venom, will furnish us with a more solid Diagnosis, Prognosis, and Cure of Diseases. Tho a Hydrophobia be the Effect of the Venom of a Dog. yet Borellus observes. Cent. 2. Obs. 38. That he met with it in a Man that had never been bit; it being produc'd by a peculiar Exaltation of the Humours, and much of a Piece with the Madness occasion'd by the Bite of a Dog. Salmuth, in like manner, observ'd it in a malignant Fever, without any previous Bite, and branded it for a Harbinger of Death | Cent. 2, Obf. 52. Among the Ancients, Calius Aurelianus describes an Hydrophabia, that came of it felf. Now, to apply the Simile, the Venom of the Tarantula is accompany d with some Symptoms, which bear a near Resemblance to the Symptoms of Melancholy, the Green-Sickness, and other Diseases. Tho' Madness is a quite different Discase from a Hydrophobia, or an Abhorrence of Liquids, yet oftentimes 'tis successfully cur'd by the repeated Immersion of the Patient in Water, as we are wont to do with the Hydrophobi: And this is confirm'd by the Experience of a very famous Physician of England, as we are inform'd by Helmont junior, in his Tract. de Homine, \$ 29 of \$3 its Well to apprive of our purharment extending to One II redied and twenty Miles with

ne Rivers, and but very lew Elvatets, infounch

CHAP. II.

Of the Nature and Situation of those Countries in which the Tarantula is bred.

Hat Country which is now known by the Name of Apulia, was call'd by the ancient Gracians Magna Gracia, and by a general Name Japygia. They subdivided it into Dannia, Pencetia, and Meffapia; from Daunius, Peucetius, and Tapygins, the Sons of Lycaon, that in ancient Times govern'd Apulia. The modern Name of Daunia is Capitanata, which is wash'd by Three Rivers, namely, the Frento, the Cerbalo, and the Offanto. Upon the right Bank of the last, we still observe some Rubbish of the famous Conna at which was fought that celebrated Battel between the Carthaginians and the Romans, that had almost prov'd fatal to the latter. The ancient Peucetia is now call'd the Province of Eari; as the ancient Messapia goes by the Name of Lecce. These Three Provinces make one continued Plain, abating for the Mountain Garganus in Daunia. Upon this Mountain we gather the officinal purging Manna, which is commonly call'd Mountain-Manya. It produces likewife feveral noted Medicinal Herbs, which all the Apothecaries of Italy make choice of, as being the more active and penetrating. From the River Offanto, to the Capo di S. Maria di Leuca, we have a wonderful Plain, comprehending the Provinces of Bari and Legce, and extending to One Hundred and twenty Miles, with no Rivers, and but very few Rivulets, infomuch that

that the Country is very much parch'd in the Summer.

The above-mention'd Apulia lies Eastward, and stands expos'd to the East and Northerly Winds. In Summer its Showers are very unfrequent, and in a word, Apulia is expos'd to the scorching Beams of the Sun, by virtue both of the Dryneis of the Soil, and of its Vicinity to the Eaft; and the Inhabitants breath in an Air that feels as if it came from a burning Oven. But at Lecce, and upon the adjacent Shores there comes usually a little before or after Noon, a Westerly Breeze from the Adriatick; which mitigates, in some Measure. the fcorching Heat of the Sun. This Temperament of the Climate, is match'd by that of the Inhabitants; for, generally speaking, they are of a hot, scorch'd Constitution, with black Hair, and a brownish or palish Skin, meagre, impatient. peevish, watchful, very quick in their Way of Apprehension, nimble in Reasoning, and extream Active. They are very subject to ardent Fevers. Frenzies, Pleurifies, Madness, and other inflam matory Diseases. Nay, the Heat is so excessive in that Country, that I have feen feveral of the Inhabitants urg'd by it to the last Degree of Impatience and Madness,

Notwithstanding the above-mention'd Inconveniencies, Apulia is inferior to no Country in Italy, for the incredible Fertility of the Soil; for the Healthiness of a pure, dry, and free Air, that is not tainted with the Foulness of stagnating Water; for the pleasant Prospect of the Sea, and an Affluence of Fish, and all Sorts of Meat. To be plain, in all my Travels thro' Italy, Dalmatia. Sc. I never met with better scented and better tasted Fruit than in Apulia. All their Wines almost are black.

black, but withal fo fragrant and powerful, that they would ferve better for a vulnerary Balfam than an Entertainment at Table. The Province of Bari produces great Plenty of Wheat and Almonds, upon which 'tis call'd the great Barn of Italy and the adjacent Countries. The Province of Lecce abounds with Oil, Wine, and Wheat; and the Oil of this Country being reckon'd the best Oil in Italy, is exported to all Foreign Countries. The Plane, the Poplar, and the other shady Trees that are chiefly valued for Pleafure, and Refreshment, are very uncommon in Apulia. The manur'd Fields are plentifully flock'd with Olives, Vines, and Wheat ; as the unmanur'd are with Rolemany. Sage Penny-Royal, and Thyme, the common Pasturage of the Animals of that Country.

Now fuch is the Temperament of the Climate, Soil, and Inhabitants of this Country, a Geographical Description of which you have in the first Figure of the annex'd Cut, and in which the Tarantula breeds; being a little Animal impatient of Cold, that keeps under Ground in Winter, during which Time it takes no manner of Food. About ten Years ago, when I was at Naples, I shut up several of them in a Vial half full of Earth, immediately upon their coming from Apulia, and sound that they lived for above a Month without

Food.

Tho' this Infect infects Men and other Animals, yet 'tis more infected it felf by a little Creature not unlike a Wasp, with a streak'd party colour'd Back, and a blackish Belly, which greedily hunts kills, and feeds upon Tarantala's, and the other Sorts of Spiders. But, what is yet more wonderful, the Tarantala's are so hostile one to another, that if you put ten of them in one Vessel, they'll

kill one another 'till only one furvives the rest; nay, if you shut but two up in any one Vessel, the one kills and eats the other in a very short Time.

In Winter they lie close in their Dens, and in Summer they straggle out and haunt the open Fields, where they lie in wait for Travellers. When the Peasants have a mind to catch etc, they come to their Holes, and, with a sma Reed, imitate the murmuring, buzzing Noise or Flies, upon which the Tarantula comes forth in quest of the Flies or Bees thus counterfeited, and falls into the Snare. They have likewise a way of taking them with a small Switch, for upon wagging the Switch, so as to make an agreeable Hishing, and holding the End of it to the Mouth of the Hole, they come out and crawl up the Wand.

CHAP. III.

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The Anatomy of the Tarantula.

A Tarantula is a Sort of Spider, or Phalangium, an accurate Description of which you have in the Second and Third Figures of the annex'd Cut. It has Eight Feet, Four on each side; and each Foot has Three Knots, or Joints. The Two Fore-feet are less than the other Six: And this Diversity of the Magnitude of Feet is common to most Spiders; for sometimes the Fore, and some

fometimes the Hind Feet are the longest, and this, I take it, is so contrived by the Almighty Architect, both to savour their Agility, and to qualify 'em for the convenient Weaving of various Webs.

An Apulian Tarantula is equal in Bulk, or rather bigger than a Wallnut , its Magnitude is much the same with the Draught of the Second and Third Figure. Its Body is divided into Two principal Parts, namely, the Breaft and the Belly which feem to be disjoin'd the one from the other, but in Effect are join'd by a flender Ligament, or little Knot. The Head is not sever'd from the Breast and Shoulders, as being a Continuation of the same. The first Thing we meet with in the Head is a Bone, from which there grows out Two Webs, like a hooked Pair of Tongs or Pincers; (aa) the Point of which is very sharp, and by that means they pierce the Skin very readily, like Two Spouts of Poison. The Substance of these Webs is crusty and friable: and in the Male Tarantula's, they are firmer and sharper than in the Female. These Pincers you may fee accurately delineated in the Micrographia of Philip Bonanni, the Jesuit, whose History of the Vatican will be speedily publish'd. Next to the Webs, or Tongs, we meet with Two little Horns, (bb) which take their Rise not far from the Webs, and have Two Joints: The outermost Point of these is sharper and smaller in the Females than in the Males, as you may fee in the Cut. These Horns they move continually, and forcibly; especially when they approach to their Prey.

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They have eight Eyes in their Head, which is likewife observed in all the Phalangia and larger Spiders that weave Webs, as well as our Tarantula; But the Binoculi, or those which have but two Eyes. weave no Webs that we know of, and differ from . the Odonoculi in Magnitude, Figure, Substance, Proportion of Limbs, &c. Their Eves are smooth and bright, and free of the little Rilings observed in other Infects. Four of these Eyes are bigger than the other; that is, there are two on each Side of the Head, which are eafily perceiv'd without the Help of a Microscope. The other four are leffer; they lie in a parallel Line under the former, and are scarce perceivable without a Microfcope. All these are to be seen in the annex d Figures. Their Eves are fometimes black and fometimes blewish be In the mean time I am at a loss to tell you what Motive induced the Almighty Architect to allot fuch a Multiplicity of Eyes to the Tarantula, and the other weaving Spiders, unless to be that the Plurality of Eyes facilitates the weaving Part; for, as I intimated already. those which do not weave have but two Eves.

The Eight-ey'd Spiders have a Belly that's divided by a great Incision from the Breast, and their Anus shews some Risings or Appendages, which send forth the Threads of which the Webs are weav'd. The Tarantula is a hairy Animal, and the Hair rises very observably all over the Body. The external Colour of the Body is various, for some are of a Quail Colour, others of an ashy or whitish, and others again of a blackish shere and there. Those of a quail or a whitish Colour, have a round Belly and a little Mouth; but the spotted have a sharper Back. Their Skin is soft; in the Males its harder than in the Females, only it does not go the Length of a crusty Substance.

I wave the Viscera of the Tarantula, upon the Confideration that their friable and foff Substance renders the minute Structure unperceivable: But I have a strong mind, fome time or other, to put em into some stiptick Water, that to their Parts being confolidated may bear the Knife. Hooching in his Micrograph. Obf. 47. affirms of the longfooted Spider, that it refembles a Sea-Crab, and that its inward Parts will be found not milike those of the Sea-Crab, if their brittle Substance did but allow of Diffection. Among the inward Viscera we may reckon the Receptacles of the Threads. fuch as the Italiam have lately discover'd in the Silk-Worms, and of which the Learned Rhedi difcourses at large in his Book de Gener, Infect. where he likewife advances many curious and remarkable Things of the Spider's Thread. Here I must obferve by the by, that the Eight-ey'd Spiders void none but liquid Excrements; whereas those of the Two-ey'd are always folid, notwithstanding that both of 'em feed equally on Flies, and fuch other Infects to the first I amend street mirrory

CHAP. IV.

The Property of a new months of the Section of the

the few hired do not weave have but two fives.

A Description of the Seed-Vessels, the Egg, and the Generation of the Tarantula: With some occasional Remarks on the Eggs of Oysters, and on Seed in general.

The Tarantula takes its Origin from an Egg, and propagates its Species by the fame Means, as well as all other Animals. Their Species confifts of Male and Female that couple together, and are endow'd with proportional feminal Veffels.

Vessels; that is, the Female is provided with an Ovarium, and the Male with fuch Organs as prepare a prolifick Spirit, and even with a Pizzle, which rifes from the Seam that joins the Breaft and the Belly, and has a blackish Colour with a wreath'd Form, not unlike the Sting of a Fly, as the excellent Marcus Aurelius Severinus has well observed in his Zootomia w , hipmonia and about

These Males are less than the Females, and of a drier Structure, as you may fee from the amer'd Figures, and the Females have longer and pimbler Feet, all the other Parts of the Structure being of the fame Proportion in both on a substitute?

The Animals couple near the Beginning of June, at which time most Animals are proud with prolifick Seed. Ariftotle in his Hift. Animal. lib. 5. cap. 8. fays of the Spiders, That when the Female Spider has drawn out the Cobweb, the Male does the same; and after a Repetition of such mutual Services, they couple together Back to Back, this way of Copulation being most convenient for them, by reason of the orbicular Form of their Bellies. But for my part I freely own, that Observation has not yet inform'd me whether they couple thus backwards, or Face to Face. If we diffect a Tarantula with young, we find in it an Ovarium compos'd of little Bladders full of little Eggs. Thefe Eggs begin to be fecundated in the Beginning of Summer, at which time the Belly of the Tarantula swells, as you see in the third Figure, (for the fecond Figure represents a Male.) A few Days after the Impregnation, it brings forth or lays a Bladder full of little Eggs, fuch as you fee delineated in Figure 4V A Dance of the Space of the ont

This Bladder or Chafter of little Eggs is of a Sky-Colour, which diffinguishes it from the Ovarium of Shell-fish, the Colour of which is wellowish and shining. The Tarantula having thus laid

the Bladder, embraces it very close, as you see in Fig. 3, and continues so to do for 12, 15, or 20 Days; after which it leaves it in the Fields, where the further Operation of the Sun brings the Eggs to such a State of Maturity, as is requisite for their breaking forth. It lays its Eggs after the same manner with the other Spiders, and its Bag lies near the Fundament; which Aldrovandus has likewise observed in his Book de Insect. fol. 625. I observed (says he) in the Belly of a Spider a great Heap of Eggs, as small as Atoms, which were white, and gave a Crack when I pressed 'em with my Finger.

A Tarantula is not impregnated till 'tis a Year or two old, at which time 'tis reckon'd to be of a Bigness proper for Generation. In the time of Copulation and Impregnation, the Male and Female are very fond of one another, and thus they continue till the Female is just ready to lay a upon which the Male leaves her, notwithstanding that the lays several Bladders of Eggs all the Summer

way of Coordation being most convenent for ground

This Bladder of Eggs refembles, in Figure and Magnitude, a Lupine; as you fee it represented, Fig. 4. If you cut it up thro' the Middle, you'll find within it a vast Quantity of little Eggs. fometimes Hundreds and above. See Fig. 5. These little Eggs are rang'd in a regular Order, and mutually join'd by thin flaggy Threads, or rather by a peculiar Sort of Slime, One of the Eggs apart is as big as a Millet-Seed, and sometimes as a White Poppy-Seed. They are every way round, and their outer Membrane is very thin and friable; in the Cavity of which are contained the first Threads of the Spiders, which the further Influence of the Sun quickly brings to Light. From the first laying of the Eggs to the perfect Exclusion, there's an Interval of feveral Days; fornetimes twenty, and fometimes thirty, in the erfr parch'd

parch'd Soil of Apulia, less or more, according as the Tarantula frequents the Plain, or the moun-

tainous Parts of the Country.

Now, that I am speaking of the Eggs of Infects. 'twill not be improper to put in a few Remarks of the Eggs of Oysters, the Propagation of which is fo little known among Philosophers. Last May I made my Remarks on fome Oysters brought alive from Naples to Rome; and in viewing with a Microscope the Milk that floats in their Cavity, I found it to be nothing else but a Collection of very little Eggs, or of the minutest Oysters swimming confusedly in a slimy or refinous Sort of Juice. If you spread this Milk upon a Glass, and hold it before a ftrong Light, you'll observe with a Microscope a Sort of swinging Motion, and a wandring Progress of the Parts of the Milk, as if fuch Progressions were the first Rudiments of Motion of the future Animal. Modesty will not suffer me to take notice of the very lively Motions, that a famous Physician of Italy has observed in the Seed of other Animals.

Milk new drawn from a She-Goat, and spread upon a Glass, represents under a Microscope an infinite Quantity of very minute Globules, or little Balls, that move nimbly to and again; nay, I've observ'd this nimble Motion in these Globules two or three Days after 'twas milk'd, provided the Milk was not turn'd or corrupted: And if you add a little Water to the Milk, you will find the Motion yet more manifest. These Remarks I made with a Microscope of three Glasses, which was so contriv'd, as to have the thing to be view'd plac'd conveniently against the Light, and consequently survey'd with more Accuracy and Niceness.

To return to the Milk of Oysters: I say, this Milk is nothing but a Collection of an infinite. Number of little Eggs or Oysters, swimming con-

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fusedly in a slimy or resinous Sort of Liquor. But I cannot guess at the Use of this whitish and slimy Glue interspers d among the Eggs, unless it be that the Author of Nature designed not only a quicker Maturation of the tender Brood of the Oysters, by vertue of a gentle and ballamick Moisture, but likewise a sirmer Adhesion of the same to the Rocks, when put forth by the Mother; to the end that they might be able to withstand the Shocks of the Wind and the Sea, and attain to a due Growth by vertue of the Firmness thus procur'd.

hald it before through items, with colerve with a Miteralizate a volve of the Half of Mation, and a control on the Half of the Barts of the Milk, as if

ming confidely in a flight or refunds Soit of

Of the Bitings of the Tarantula.

Country, nor in every Season of the Year, but only in Apulia, and that in Summer, especially about the Dog-Days. The Sting of it is not offensive in Winter; and, which is strange, the Tarantula's that haumt the very Mountains that border upon Apulia, do no harm, let'em bite when they will. The nocive Sort are bred in the Fields of Apulia, and do harm chiefly in Summer, by reason that their Poison is then exalted by the scorching Beams of the Sun, which makes'em so mad and raging, that they assault every one that comes near'em: Nay, they are not only offensive to Men, but to other Animals. Which is likewise observed by Alianus, lib. 1. cap. 5. where he informs us, that the Tarantula's are permicious to Harts, and that Ivy is their only Remedy; insomuch that they die, if they do not eat of it in a very short

pulia are of Opinion, that their Woonds are most pernicious in the Season of Coition; that is, about the Beginning of Summer; upon the Plea that their Poison is then exalted both by the venereal Rage and the Summer Sun, as 'tis commonly reported of other venomous Animals. But after all, their Stings are very venomous in the After Part of the Summer, as well as at the Time of their

venereal Pride.

In that Part of Apulia which goes by the Name of Bari, the Reapers are frequently bit by 'em: For that Province being a very wide and pleafant Plain, covered with Wheat, with few or no Trees, is roafted and inflam'd, as 'twere, by the Beams of the Sun; the excellive Heat of which infpires the Tarantula's with a greater Rage, and makes 'em fet upon the Reapers and Travellers with greater Fury: Particularly the Reapers are very much exposed to their Bites; for the Tarantula's making their Progress either upon the Nastiness of the Furrows, or upon the Stalks of the Wheat, fasten readily upon their Hands or Feet; and for that readon they are wont to wear Boots to guard off the Injury.

'Tis generally believ'd, that a Viper does not bite but when 'tis provok'd; and accordingly we fee fome Mountebanks handle 'em without receiving any Injury, because they handle 'em dexteroully and without Violence. Upon this Assertion Mr. Charass grounds his Opinion, That there is no Posson hid in a Viper, but that all the Force of the Venom lies in the Spirits of the Viper, their being instam'd and enrag'd by external Violence; insomuch that when the Spirits, thus instam'd and exalted to a virulent Temper, are mix'd with the Humours of Animals, they presently raise a fatal Storm of Symptoms. But the

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contrary being made out by the folid Experiments of my learned Friend Mr. Rhedi, I leave the

Truth to be decided by impartial Judges.

Let better Heads judge, whether the fame Queftion will lie upon the Venom of the Tarantula: This I know by my own Eyes, that a Tarantula attacks Persons afleep, as well as awake; and without any Provocation, as well as when 'tis irritated; and that in both Cases its Bites are venomous. When it bites, it throws out a small and scarce perceivable Quantity of Liquor; but indeed I am yet to learn, whether that Liquor is the Venom, or the Vehicle of inflam'd and venomous Spirits. Tis likewise manifest from the Experience of the Apulians, that not only their Bites, but even the Liquors in which they are fliff'd, are capable to produce pernicious Effects. And this we find confirm'd by an Eye-Witness, namely, Epipbanius Ferdinandus, cap. 2. observ. 81. Now this overthrows the Opinion of the inflam'd Spirits, for all the Porce of the Spirits is funk in the Liquor; and therefore we conclude, that the Venom of the Tarantula is lodg'd in a more folial Subject.

The Bite of a Tarantula raises a Sense, not unlike that of the Stinging of a Bee or an Ant. After the Part is bit, 'tis circumscrib'd with a little Circle of a livid, yellow, black, or some such Colour, a very violent Pain ensues, and sometimes instead of the Pain there's a Numbress, and divers such like Symptoms, according to the various Colour and Magnitude of the Tarantula, the various Exaltation of the Venom, the various Constitution of the Patient, and such other things; which cannot be set in a clearer Light, than by giving some Histories of Persons bit by 'em; which the Reader will meet with a little sower.

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Voice is forrowful and querulous, and his Eyes difund d; and what he quad d Hy) he if thenders where his Pain lies, he either makes no shifter at

A Description of the Diseases and Symptoms that ensue upon the Bite of the Tarantula.

THE Life of Man is always a Scene of Unhappiness, but 'tis yet unhappier when 'tis teaz'd with Diseases, and unhappiest of all when plagu'd with Poison. The Poison of the Tarantula affords us a deplorable Instance of this Unhappiness; for such is the peculiar and uncommon Nature of this Venom, that when once it feizes the Body, it either kills the Patient out of hand, if Mulick and a featonable Use of Remedies does not immediately take place; or, when these are employ'd, makes fuch a deep Impression upon the Fluids of the Body, that it revives (as it were) every Year, and particularly in the three Months of Summer; and unless this anniversary Return be mitigated for the time with Dancing and the other Antidotes, it keeps the Patient all that Year under an innumerable Train of grievous Diforders.

Commonly the Tarantula bites People when they are alleep, and not aware of 'em; but if the Perfon thus bit is awake, he feels fuch a Pinch as if he were frung by a Bee or an Ant. The Part affected is feiz'd sometimes with Pain, and sometimes with a great Numbness: Immediately upon the Wound given, 'tis furrounded with a livid, black, or yellowish Circle; and soon after rises in a painful Swelling, which upon recourfe to Mufick and the Use of Remedies, vanishes along with the other Symptoms.

A few Hours after the Bite, the Patient is feiz'd with a great Difficulty of Breathing, a heavy An-

guish of Heart, and a prodigious Sadness; his Voice is forrowful and querulous, and his Eyes difturb'd; and when he's ask'd by the By-standers where his Pain lies, he either makes no Answer at all, or points with his Hand to the Region of the Heart, as if that were most affected.

These Symptoms are most frequent upon the first Invasion of the Illness; but they are not perpetual, neither are they common to all Patients; nay, they are not produc'd by all Tarantala's; for the Symptoms vary pursuant to the Variety of the Nature of the Tarantula, the Constitution of the Patient, and the greater or leffer Violence of the Summer Heat. Accordingly the Apulians observe. that the Tarantula of the Northern Places of Apulia are worse, and occasion more grievous Symptoms; and withal, that those who are bit by 'em, are pleas'd with feveral Colours, especially a red green, blue, &c. but not a black, insomuch, that if the Attendants have Cloaths on of a Colour that's ungrateful to the Patient, they are obliged to retire out of their Sight; for upon feeing the Colour they dislike, they are presently seized with an Anguish at Heart, and a Renewal of the Symptoms.

The Symptoms vary in pursuance of the Variety of the Tarantula's. The whitish Tarantula sufes a flight Pain, follow'd by an Itching, a pricking Pain in the Belly, and a Loofenels. The spotted Tarantula causeth a sharper Pain and Itching, and even Senfeleineis, Heavineis, Pain of the Head, Shivering of the whole Body, and the like. The blackish Tarantula, besides all the forementioned evil Effects, is attended with a Swelling and grievous Pain in the Part that is ftung, Cramps, Chillness, and a cold Sweat all over the Body, Speechlesues, an Inclination to vomit, Extension Breathan a hard an

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of the Yard, Swelling of the Belly, and others to

be spoken of afterwards.

Since of the numerous and almost incredible Symptoms of Persons stung by the Tarantula, many seem to slow from a depraved Imagination, twill be reasonable enough to affert, That this Sort of Poison, after the sharp Fit of the violent Symptoms, which appear for the first Days, is over, ends at last in a peculiar kind of Melancholy; which continually hangs upon the sick Person, till by Dancing, or Singing, or Change of Air, those violent Impressions are quite extirpated from the Blood and the Fluid of the Nerves; which very sew have the Happiness to meet with for its certain, let a Person be once stung, there's no Expectation of ever being persectly cur'd.

This Affertion has for its Confirmation innumerable Symptoms, which finell strong of a Diferder'd Fancy; for many of these Persons are never well but among Graves, and in folitary Places: and they'll lay themselves along on a Bier, as if they were really dead; they'll throw themselves into a Pit, as if they were in Despair. Maide and Women otherwise chaste enough, without any Regard to Modesty, fall a sighing, howling, and into very indecent Motions, discovering their Nakedness: they love to be tos'd to and again in the Air, and the like. There are some that will row themselves in the Dirt like Swine, and are mightily pleas'd with the Exercise. Others again you cannot please, unless they be soundly drubb'd on the Breech, Heels, Feet, Back, &c. And there

There are also curious Observations made about Colours; some of which are very agreeable to those Persons, as others are offensive to em; and according to the different Degree of Depravation in the Fancy, sometimes they are refresh'd or

are some that take a great Pleasure in running.

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A farther Explication of the other Symptoms, and their Analogy with other Difeases.

Enerally speaking, the Symptoms of Persons I flung with the Tarantula, upon the first Accellion of the Poilon, are much like those usually observ'd in malignant Fevers, proceeding from Coagulation; such as Pains at the Heart, a Difficulty of Breathing, a strange Irregularity and Disorder in the Pulfe, a fudden and almost fatal Failure of the animal and vital Actions. Of all these things my honoured Father is an Eye-witness, who, not many Years ago, at Leccee in Apulia, where he is a Phylician of established Reputation, as every one knows, observed that when three fick Persons were brought hither from the Country fick of this malignant Fever, and having many Symptoms very like those that appear in Persons bit by the Tarantula, their Parents were of Opinion that they were actually flung; and therefore having fent for the Mulick (tho my Father oppos'd it as much as he could, and affur d them the Diffemper was a malignant Fever, proceeding from the Coagulation of the Blood,) the poor Patients, at the Inftance and Persuasion of their Parents, sella dancing together. One of them very fairly danc'd himself off the Stage, and the other two did not fray long behind. Whence we collect, that this malignant Fever is very often militaken by Physicians. As for the Poison of the Tarantula, if I am able to judge of any thing, I am apt to believe that this Poison has its principal Seat in the Liquor of the Nerves, or the animal Spirits: For continual Pains of the Head, Faintings, Aching of the Bones, Unableness to move, Pains of the Stomach, Sickness at the Heart, and such like Symptoms, abundantly discover the distemper'd State of the Spirits: But yet I would not exclude an antecedent virulent Disposition of the Blood it fels.

The principal Parts that feem to fuffer most by this Poison, are the Stomach and Heart, (if by the Heart we may understand the Mass of Blood that circulates through it; for I have no mind to contend about the Term) for they are feldom free from Disorders of the Stomach, Qualms, Thirft, Want of Appetite, Anguish at Heart, Convulfions, Heaviness, Pressure in the Breast; whence they are always moaning, fighing, pale and filent. And it's worth the while to remark, that many of our Country-Women in the Green fickness have had almost the same Symptoms with those that appear in Persons poison'd by the Tarantula ; and because they have been suppos'd to be really infected, they have taken up a Custom of dancing every Year, and by this means have had the good Luck to rid themselves altogether of that Distemper, and the frequent Fits of the Mother. In regard this Exercise has remov'd these and several fuch Diftempers through Sweating, we may hence draw a practical Aphorism, that such Distempers of Women will never be more reasonably cured than by ftrengthning Medicaments that may exalt the wasted and languid Mass of Blood, and not by Purgatives, Saccharates, and the like, which do but weaken it the more. Amongst the principal Corroboratives, which ferve to repair the wasted Mass of Blood in Chronical Diseases, I mightily esteem riding out every Day in the Country Air especi-

especially in the Morning by which I have perfectly cured fome that were almost incurable. These things I have taken notice of by the by, concerning Dancing and Riding, to make it evident, how much Exercise serves to strengthen and refresh the sprightless Mass of Blood in Chronical Cafes, when all other Kinds of Remedies are to no purpole, especially if the Distemper has its Rife from any Trouble in the Mind: But Riding is preferable to all the reft; for the whole Force of that jogging Motion terminates downward in the Bottom of the Belly, where a Fermentation is rais'd, by which the flughating Matter recovers its loft Circulation.

Here it must not be conceal'd, that the' in our Country there is really fuch a Thing as the Poilon of the Tarantala, and Persons infected with it; yet Women, that make up a great Part of that Number, very frequently counterfeit it under the Mask of its tifual Symptoms; for, whether they be under the Power of Love, or have lost their Fortunes, or meet with any of those Evils that are peculiar to Women, they never leave poring upon the mountful Object, till they run into Despair, or downright Melancholy, or at least are upon the Borders of it: And then they are also under a Disadvantage of living a solitary Sort of Life, like that of Nuns, deny'd the Benefit of free Converse with Men, though never so fair and honest. Besides all this, the Climate is sultry, their Conflightion is of the fame Nature, their Food hot and very nourifhing, and their Life eafy. Partly from the former, and partly from the latter of these Causes, tis no rare thing with them to turn mopifh and melancholy : No wonder then, if they mightily delighted with Variety of Mulick and Dancing; whence they feign themselves to be mag by the Tarantula, on purpose to enjoy the

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agreeable Diversion of Musick, which is only allow'd to fuch Perfons; and then the Shain paffes the better, for that the Pretext is accompany'd with a real Paleness of Face, Sadness, Difficulty of Breathing, Sorrow of Heart, a depraved Imagination, and the other Symptoms of the pretended, rather than true Poison of the Tarantula. In fine, the mufical Entertainment of this Country is fo very agreeable to the Women, that his a Proverb with us, Il' Carnevaletto delle Donne. But tho' Women counterfeit this Diftemper fometimes, we must not therefore imagine, that all others do the fame : for there are forme Persons, otherwise both Learned and Religious, who not being fatisfied of this upon the Credit of Perfons that were fruit have made the Experiment upon themselves and coming into Apulia, have been brought into fach imminent Danger by being ftung themselves, that they have confessed, unless the Musick had been ready at hand, their Lives would have gone fort. The fame is afferted by our Epiphanius in the forecited place.

The venomous Tarantula, as we faid before, is found no where but in Apulia, and there especially in the plain Fields; for such as are found in the neighbouring Mountains, are either without Venom, or if they have any, it is not so permicious: And if one of the Tarantula's, which frequent the plain Fields, be removed into other Countries, as to Naples or to Rome, a Person may be stung by it without receiving any hurt at all; at least the evil Effects are sew and inconsiderable, as will be shewn in the following Relations. Some there are who affirm, That such as are poison'd by the Tarantula, labour under the evil Effect of the Venom so long as the Spider lives: But this is an idle Story, and contradicts the infallible Experience of the People

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of our Country, so that I need not spend time to

Not only the Tarantula, but also the Scorpions of Apulia are venomous, for the Sting of the latter is observed to produce almost the same Symptoms as the Poifon of the former: Those that are fung by them delighting themselves in Musick and Dancing, are cured by the very fame Means only, as I shall shew afterwards. For this reason many of the old Greeks, and our Countrymen too have been of Opinion, that all those Symptoms which are commonly afcribed to the Tarantula, do principally proceed from the Sting of Scorpions; but as this is also against the standing Experience of our Country I shall therefore now lay down this for a certain Truth, That the Tarantula and Scorpion of Apulia are both of 'em most venomous, and produce almost the same Symptoms, and are cured by the same Means, that is, by Musick and Dancing and the like. The Scorpions however are not fo virulent as those of Africa, but more than they are in any other Part of Italy.

There are some that die in a very sew Days after they are stung by the Tarantula, the usual Remedies being of no Advantage to them at all. Others again are recovered from imminent Death by the said Means. But the Seeds of the Poisons give the Humours of the Body so deep a Tincture (which is not usual in other Poisons) that there is scarce any Poshbility of utterly extirpating them, so that they seldom sail of accompanying the Patient to the very Grave; and as I always said, where-ever this Poison enters, it

makes an indelible Impression.

It is a Piece of Curiofity to search into the Period and Revival of Poisons. The Poison of a Dog has been sometimes observed to cleave to the Mass of Blood for thirty Years; and having its stated

stated Seasons of recovering its Vigor, has continued to the very Death of the Person infected. Upon this Subject, it will be worth while to read Hildanus's History, Cent. 1. Ob. 86. concerning a Matron, who being bit by a mad Dog, found the Poison renew'd its Vigor every seven Years, for almost thirty Years together, till at length she died. Tis commonly believed, that if the Poison of a Dog keeps undiscovered for 40 Days together, it will never appear any more; but this appears to be false from the forementioned History; and I my felf did fee at Rome this very Year 1695, an Apothecary, who being bit by a Dog in the Month of June this same Year, when he was at Unbino. the Place of his Nativity, and having afterwards come to Rome, was on a sudden taken with the Diftemper that's usual in such Cases, and in two Days after dy'd about the Middle of October last past. The same thing has been observ'd in a young Physician by the Celebrated Luccas Tozzius, who is at prefent Physician to the Pope, as he was lately pleased very freely to tell me. Fracastorius. lib. 2. de mont, contag. says, I my self have seen a Boy, who eight Months after he was bit by a Dog. discovered the Contagion, of which he presently dy'd. The Impressions of the venereal Distemper flick to the Blood for 30 Years together and better, without any Trouble or Injury to the Patient's Health; but then there is as vigorous a Return of the Symptoms, as if it were upon the first Onset. The Poison of the Tarantula renews it felf infallibly every Year, especially about the same time when the Patient receiv'd it.

When the Heat of the Sun begins to be violent and foorching, which happens about the Beginning of July and August, such as are infected with the Poison of the Tarantula, sensibly perceive it renewing it self by degrees, and discovering it self

by want of Appetite, Sickness at Heart, Heavinels of the Head, Thirst, Pain in the Bones as if they were broken, and fuch like, which fometimes come gradually, and fometimes all on a fudden, cafting the Patient into a violent Fit. If the Patients are aware of the gradual Advancement of the Symptoms, they presently have recourse to the Musical Entertainment, to prevent their being taken with a fudden Fit: But if it comes upon them unawares, without the previous Symptoms, then, like Persons struck with Thunder, they fall down upon the Ground half dead, the Hands, Face, and other remote Parts of the Body turning black, the Breath almost quite stopp'd; and in this Condition they lie till the Muficians come, by whose wonted Tunes they begin to recover by little and little, and to be prepared for the Dance; moving first their Limbs, and then the whole Body.

Dancing, then will he be under very grievous Symptoms all that Year; such as a Jaundice Colour in his Skin, Sickness at Heart, Want of Appetite, a slight Fever, and the rest of them, which we have already mention'd over and over. Further, if he eats any Weather-Mutton, Cucumbers, or Citruls, he is presently seiz'd with a grievous Pain at the Stomach: But then if he makes use every Year of the Season for Dancing, and by Sweating and the Sound of the Musick throw out the Seeds of the Poison, he holds very well all that Year, and is not liable to any of the fore-

mention'd Symptoms.

CHAP. VIII.

Of the Cure of the Sting of the Tarantula, and of the evil Effects it produceth.

Hoever happens to be infected with any fort of Poison, is thereby brought into great Danger; and much more they that are stung by the Tarantula or Scorpion of Apulia, many of whom die quickly in the space of an Hour, the usual Re-

medies being of no Advantage.

The Effects of Poison are generally reduced by Physicians to two Kinds, viz. Coagulation, and Diffolution of the Mass of Blood. Any one may infer from the Symptoms that have been fo often repeated, that the Poison of the Tarantula has a Tendency in it to curdle or thicken the Blood, and there needs no farther Evidence of that, than the fudden Oppression of the Pulse, Anguish at Heart, great Difficulty of Breathing, Blackness of the Face and other extreme Parts, Chilness and a Shivering all over the Body, deep Sleep, and fuch like; which indeed are various according to the Nature of the Tarantula, or Constitution of the Patient, and some antecedent Indisposition of the Body, as the Summer is more or less hot, and the like. When any one is bit by the Tarantula or Scorpion of Apulia, the Cure is perform'd by diffolving and attenuating the poison'd Humours of the Body, by Alexipharmicks, Theriacks, Bezoardicks, and other Remedies, differing but little from those that Physicians commonly use in the Cafe of Persons stung by Vipers. With us they fearify the Place that is bit with a Lancet, and fometimes is fo void of Sense, that the Patient cheels no Pain while the Incision is a making. Z 2

When this is done, they apply a Cupping-Glass to extract the Venem; then they chafe the Part with Treacle and bruis d Garlick, and sometimes with Mithridate, or Confection of Orvietan, till the

Poison is in some measure weakned.

For my part (if ever I may have my own Will in this Matter) I should forthwith sear the Place that's bit, with a red-hot, Iron: For as Fire is a most eager Stimulative, it serves to shog the Fibres of the Part affected, and successively the whole Frame of Fibres in a human Body; or to give them a quick, continued, and vehement Motion; by which means the adjacent Humours are locfen'd and mov'd to and again, attenuated, and fearce ever suffer'd to be fix'd by the coagulating Venom; especially in the Part affected, where the Fire is more pungent, and the Humours more inclin'd to curdle. But because I never yet made Trial of those happy Effects of Fire, nor receiv'd their Confirmation from other Authors, I shall wave for the present any farther Encomiums upon them; however, 'twill not be amis to take notice of the Effects of Fire in other Diseases. I have often observ'd, that searing with a hot Iron in the Beginning of Gangrenes or foul Ulcers, has had very ill Effects; for the Scar that the unfeaforable Searing produc'd, quite flopp'd and shut up the Fibres and Vessels that lay open before: So that the necessary Evacuation of the Corrolive and Gangrenous Humour being thereby hindred, no wonder that the noxious Humour of the Ulcer. retiring farther inwards, according to the Difference of the Parts in which 'twas lodg'd, produced various and dreadful Symptoms; nay, more than this, the feared Part has been quite dry'd up and grown black; and after a Number of Evils, in the Compass of a very few Days, has terminated in De W

the Death of the Patient: As I have several times observed at Padua, and other Hospitals of Italy.

: When therefore fuch Ulcers are to be cured, which may be fuspected of Malignity, and have a very corrolive Humour in them, Recourse must not prefently be had to hot Irons and Causticks : but let Care be taken, in the first place, to foment them with Balfamick Decoctions, Vulneraries, and the like; by which the corrofive Humour is drawn outwards, the feeble and wasted Fibres are restor'd. and the Humours circulating through the Place affected, receive a Balfamick Sweetness and Strength. And here I am free to fay, That if laying afide Ointments and the oily Remedies of ordinary Physicians, those vulnerary and Balsamick Decoctions are us'd inwardly and outwardly, and the malignant and gangrenous Ulcers be at the first manag'd in this Method patiently and affiduoufly; they will not only be cur'd in a little time, but will scarce ever corrupt again, or grow incurable. But if these Remedies are of no Service, and the Ulcer is observ'd to grow contagious and feeding in these two Cases, only recourse must be had to Burning and Caufticks, and at length to the cutting off of the Member, if there be great Fear of a Gangrene. After the Ulcer is seared. Care must be taken that the Scar falls off as foon as possible; left the Mouths of the Vessels being thereby shut, should hinder the Eruption of the malignant Humour, as I observ'd but now. Besmear the Part with the Juice of Parfly, and twill foon throw off the Scar, If upon the Place that is fear'd be blown the Flower of Wheat-Meal, reduc'd to as fine an Alochol as possible, and thereupon be apply'd a Pledget moistned in black Wine, and left upon the Ulcer for the Space of one Day, after which 'tis to be fomented with Linfeed-Oil, then Zigunian alfo when the Cure was peform'd by D. Marchetti.

But to return into our way from this Diversion: After the Physicians of our Country have thus scarify'd the Part bit by the Tavantula, and ply'd it with Alexipbarmacks, then they have recourse to inward Remedies; amongst which, the Principal are the Spirit of Wine, diffill'd with Rolemany or Hurgary-Water; or rather, the very Essence of Rolemary distill'd by it felf, and taken with Treacle-Water, or the Water of Citron Rind, or Hystop, Parsly, wild Thyme, &c. There may therefore presently be given the said Spirit of Wine tinctured with Rofemary, from one Ounce to two, with Thyme-Water, or with the Decoction of preservative Herbs; and the Patient must be well cover'd in a Bed to bring him to a Sweat: and that he may more eafily fall into it, a linen Cloth, moistned with the Spirit of Wine, and (after it has been flightly warm'd) wrapp'd about his naked Body, is commended as very uleful. Epiphanius Ferdinandus, in his Observations, proposes the following Electuary, which he calls an Antipholorgium, as very useful, and what he has made Trial of, viz. Take of Myrtle-Berries, and Tamarisk Wood, of each an Ounce; Seeds of Parsnips, black Coriandar, Chaft-Tree, Carrots, Anife, Cummin and Origanum, of each a Dram ; Seal'd-Earth, and Oriental Bole-Armoniack, of each two Drams; with Syrup of the whole Citron, make an Electuary; of which take two Drams every Day in the Morning, drinking above it the Decoction of Alexiphurmacal Herbs and Roots. But in earnest, these or any other Remedies that can be propos'd are to little or no purpole. unless the Musick be presently us'd, as is well known by the constant and infallible Experience of those Parts of the Country. This must be own'd to be the principal Antidote against the Poison of the process of the process of the

the Tarantula; and when once that is heard, the Patients, tho' they lay before as if they had been taken with an Apoplexy, begin by degrees to move first their Hands and Feet, and afterwards the other Parts of the Body, till at last they fall a howling, sighing, uttering obscene Expressions, and dance for three Days together. But of these singly.

CHAP. IX.

Dancing and Musick are the principal Antidote for this Poison; where, by the way, a Description is given of the Manner of Dancing, So usual in Apulia.

Because those that are stung by the Tarantula die in a little time, without the present Assistance of Musick, all other Remedies giving no Relief; it will not be amis to give some Account of the Manner of Dancing that is so usual with us.

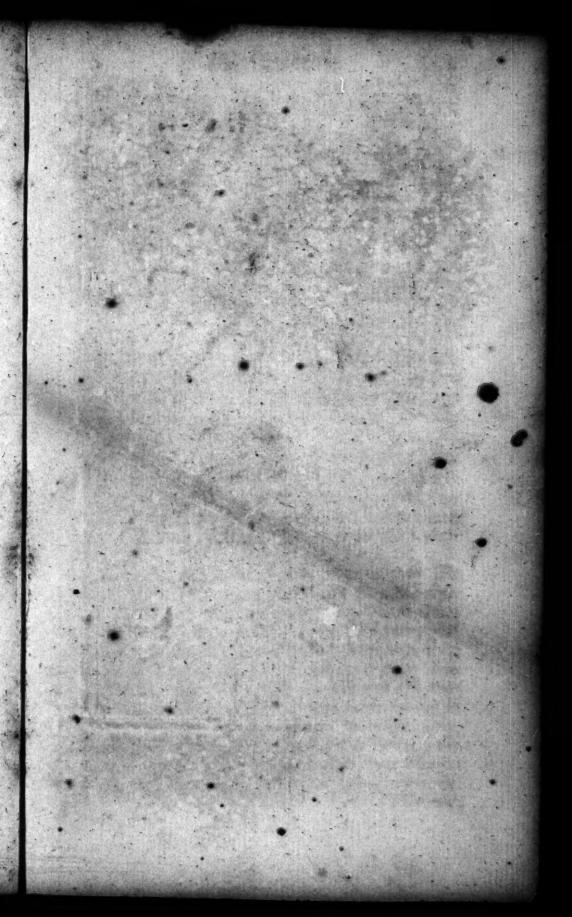
When any are stung, shortly after it they fall down upon the Ground half dead, their Strength and Senses going quite from them. Sometimes they breathe with a great deal of Difficulty, and sometimes they sigh piteously, but frequently they lie without any manner of Motion, as if they were quite dead. Upon the first Sounding of the Musick, the foremention d Symptoms begin slowly to abate, the Patient begins to move his Fingers, Hands, Feet, and successively all the Parts of the Body; and as the Musick increases, their Motion is accelerated; and if he was lying upon the

Ground, up he gets, (as in a Fury) falls a Dancing, Sighing, and into a thousand mimick Gestures. These first and violent Motions continue for several Hours, commonly for two or three; after a little Breathing in a Bed, where he is laid to carry off the Sweat, and that he may pick up a little Strength, to work he goes again, with as much Eagerness as he did before, and every Day spends almost twelve Hours by the Clock in repeated Dancing; and, which is truly wonderful, so far is he from being wearied or spent by this vehement Exercise, that (as they say) it makes him more

forightly and ftrong.

They frequently begin to dance about Sun-Rifing, and some continue in it without Intermission till towards Eleven in the Forenoon. There are, however, some Stops made; not from any Weariness, but because they observe the musical Instruments to be out of Tune; upon the Discovery of which, one would not believe what vehement Sighings and Anguish at Heart they are seiz'd with; and in this Case they continue, till the Instrument is got into Tune again, and the Dance renew'd; and 'tis strange, that poor Country Girls and Boys, that perhaps in all their Lives never so much as set their Eyes upon any of the better Sort of musical Instruments, should upon this Occasion become so able Judges of the Tunableness or Untunableness of 'em,

About Noon the Exercise ceases, and they are covered up in a Bed to force out the Sweat: When this is done, and the Sweat wiped off, they are refresh'd with Broth, or some such light Food; for their extraordinary want of Appetite will not allow them to seed higher. About one a Clock after Noon, or two at farthest, they renew the Exercise as before, and continue it in the manner abovemention'd till, the Evening; then to Bed they go



Pag . 343 . THE ADRIATIC IONIC AN TULA SEA TAR

again for another Sweat: When that's over, and they have got a little Refreshment, they lay themselves to sleep. This way of Dancing commonly holds four Days; it seldom reaches to the sixth.

The Space of time for Dancing is not generally certain; for there are many that continue it till they find themselves freed of all the Symptoms, which very frequently happens after the third or fourth Day; for then the Mass of Blood being clear'd from the virulent Parts by repeated Sweats. the Patient enjoys the Benefit of Health as before, and all that Year is free from the ill Symptoms of that Distemper. But the the venomous Seeds of the Disease are remov'd from the Blood by Sweats. which this Exercise procures, it does not therefore follow, that those which are produced by the common Diaphoreticks will have the same Effect: For when feveral of our Physicians have set aside the Dancing, and brought the Patient to a Sweat by Diaphoretick Waters and Confections, some Days before it was suppos'd the Fit wou'd come upon him, it has come nevertheless, and that with greater Eagerness; so that they have been forc'd to repair to the Dance, and by frequent Sweats this procur'd way to turn off the Fit.

About the same time of the Year that the Patient was stung, the grievous Symptoms of this Distemper make their Return; so that if any are not quick enough to get before hand with the Distemper, by having recourse to the Dances, the Fit comes upon them unawares; and where ever it finds them, down they fall, as if seized with an Apoplexy, and become speechless, the Face and Extremities of the Body turning black, &c. Upon the Notice of this, their Relations presently send for the Musick; upon the hearing of which, they begin by little and little to come to themselves; and moving themselves, as was said before,

get up and fall a dancing: And, as I also took notice already, if the Season for Dancing is slipp'd, and the Advantage of Sweating procur'd by that Means lost, the Patient must expect to be severely afflicted all that Year, by want of Appetite, a Jaundice Colour in his Skin, Weariness all over the Body, and the other fore-mention'd Evils, which grow yet worse and worse, if he neglects the sollowing Years also to dance; till at length he falls into an ill Habit of Body, Dropsy, and

other incurable Difeafes.

I will here subjoin some Curiosities observ'd in those Persons in the Time of Dancing. In this vigorous Exercise they generally figh, make heavy Complaints, and (like Perfons in Drink) almost quite lose the right Use of their Understanding and Senses. Their Parents, and other By-franders, receive the fame Treatment from them; and they scarce remember any thing that's past. Yet there are some of them that, during the Exercise of Dancing, are mightily pleas'd with the green Boughs of Vines or Reeds, and wave them about in their Hands in the Air, or dip them in the Water, or bind them about their Face and Neck, and even plunge their Hands and Faces into the Water. There are others of them that love to be handling red Cloaths, and naked Swords. Hereupon the common People have taken up a prevalent Opinion. That fuch of 'em as love to dance with green Vine Branches in their Hands, have been flung by the Tarantula; and that, on the other hand, fuch aslove red Cloaths and the naked Sword, have been flung by the Scorpion; the Truth of which I leave undetermin'd. Others again, when there is a little Intermission of the Dancing, fall a digging of Holes in the Ground, which they fill with Water, and then take a strange Satisfaction in rolling themselves in them like Swine. Lastly, when they

they begin to dance, formetimes they call for Swords, and there they act the Fencer, flourishin as they dance; formetimes they are for a Looking. glass, but then the Sight of themselves setches up many a deep Sigh. Sometimes their Fancy lead them to rich Cleaths, curious Vests and Necklaces and fuch like Ornaments; and then they are highly courteous to the By-standers that will gratify them with any of these things; they lay them very orderly about the Place where the Exercise is perform'd, and in Dancing please themselves with one or other of them by turns, as their troubled Imagination directs them. They are most delighted with Cloaths of a gay Colour, for the most part red, green, and yellow. On the other hand, they cannot endure black, the very Sight of it fets them a fighing; and if any of those that stand about them are clad in that Colour, they are ready to beat them, and bid them be gone.

CHAP. X.

Some other Things belonging to this Exercise are briefly consider d.

As the Tarentula's are of different Sizes, Colours and Virulency; so the Persons shing by them are delighted and moved to dance by different Kinds of Sounds, according to the Difference of the Tarantula that infected them. Nay, every Patient has not only his particular Tune, but also his particular Instrument: Some a Pastoral Pipe, others a little Drum, Cittern, Harp, Timbrel, Violins, and Pipes of several Sorts. Here 'tis remarkable, that sometimes the Musicians will tune three

three or four different Sorts of Sounds, without having the least Effect upon the Patient. But when they fall into a Tune that's accommodated to the Poison, they presently receive the Benefit of it. However, this must be taken for a Truth, That how much foever they vary in their particular Tunes, yet they all agree in this. To have the Notes run over with the greatest Quickness imaginable (which Quickness of Sound is commonly call'd Tarantula.) And therefore the Players, that have not their Leffon to learn in these Matters, eafily discover the Cheat of the Women: for if they find that they presently take any Motions, and jog on indifferently, without any regard to the Swiftness, Slowness, or other Difference of Sounds, they give to understand, that the honest Woman is but in jest; and afterwards Experience puts the Matter out of doubt.

This is what I had shortly to remark concerning the way of Dancing, and the Effects of it. It remains now to examine, Whether Musick has so much Influence upon the Tarantula it self, as to put it upon dancing, and whether other Animals that

are flung by it necessarily dance.

Sound of Musick, is what some have believed; as Kircherus Mund. Magnet. lib. 13. part. 8. and other Authors, who have judged upon the Credit of others, rather than from what they themselves have seen. But from what has been already said we must know; that the Tarantula is a Sort of Spider, or an Eight-ey'd Phalangium; the Substance of which is almost all brittle, membraneous, and most subtile, filled with a peculiar Sort of nutritious Lympha (for I seldom or never observ'd any Appearance of Blood in it) so that it is no wonder if the slightest Motion from within causes involuntary Throws.

But befides this, it is in the very Nature of the Infect to be inclin'd to Leaping, and other vehement Motions, and it has fcarce ever been observed to rest; and farther, the extraordinary Heat of the Summer adds to this; and by exalting and attenuating its Humours, heightens the Motion. I have feen the Leg of the Tarantula pull'd off, dance for almost two Hours together. There is yet a third Cause, and that is the undulatory or wavering Motion of the Air, which being ftruck pretty sharply by the Musical Instruments, and terminating upon the membraneous Body of the Infect, makes it not at all strange, if it seem to move at the Sound of the Musick, altho' that Dancing proceed from these external Motions, rather than any Pleasure or natural Instinct inclining it to move so upon that Occasion: all which will be more evident to any that shall read a Treatise of the Force of Percussion. publish'd not many Years ago by the celebrated Borelli (a great Ornament to the Academies of Naples and Rome) wherein many Secrets of the Power of Impulse are examin'd. But the' this is my own Mind in the Case, yet I don't obstinately deny its dancing from a natural Instinct also, especially as we have the Word of the forecited Epiphanius for it, and of several other Eye-witnesses : only I think the Matter needs a little further Proof.

We are now to enquire, Whether the other Animals, being stung by this Insect, are inclined to dance as well as Man. With us the Affirmative is generally held, and I have often heard it from Eye-witnesses. Sennertus also, lib. 1. cap. 7. from Epiphanius his Observations tells us, that a Wasp being stung by the Tarantula, sell a dancing together with it at the Sound of Musick; and that a Cock happening to be in the way, was by the same Means brought in for Company. Whether other

Animals that are string by the Tarantula, are put upon that dancing Motion from the same Causes, which we have observed but now to have that Effect upon the Tarantula it self, is what I question very much; yet I consess, that as those that are bit by a mad Dog will howl, and in other respects act like Dogs, which proceeds perhaps from the Impressions of certain Ideas of the mad Dog upon the Poison, and conveyed along with it; so if the Instinct and Inclinations of that little Greature are latent in its most active Poison, and be thereby communicated to other Animals, it is no great wonder if they exert their whole Power in them, and that in a way very agreeable to the Nature of the Insect.

About Ten Years ago, when I was practifing at Naples in that fam'd Emporium both of Learned Men and Sciences, a Friend of mine was at the Pains to bring thither some of these Insects alive from Apulia, about the Month of August. One of them we first irritated by striking it slightly, and then let before it the Head of a live Coney, the upper Lip of which in a little time it fung in two places. Two Hoursafter this, the Lips fwell'd remarkably, and grew black; and the Coney it felf being taken with a strange Difficulty of breathing, the Hair at the fame time standing fraight all the Body over, fell down to the Ground. Till the fourth Day, it took neither Meat nor Drink; but lying fenflefs, and being much oppreffed by the foremention'd Symptoms, the fifth Day about Noon it dy'd.

were grievously swell'd; ay, and the Abdomen too; and the Musician came and us'd great Variety of Tunes, yet it had no Effect upon the Coney, which still lay quiet, and without Motion. It is therefore probable, that that Poison does not produce the strange Effects of Dancing any where

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but in Apulia, where by the fcorching Heat of the Sun it is exalted to its due Height, and not in other Parts that lie perhaps under a colder Climate. I purposed, upon my Return to Lecce, to make Tome Experiments in Animals by the Sting of the Tarantula; but as I had scarce got home before I was to travel into foreign Countries, I cou'd do no-The of all areas

thing at all in that Matter.

When the Body of the Coney was open'd, we found the Veins and Arteries of the Brain swelld up, and the Brain it felf a little infiam'd and fet about with blackish Spots here and there. The Lungs and other Entrails were diffended with clotted and black Blood. In the Ventricles of the Heart were observ'd greater Clotts of Blood, and finall Branches of a Polypous Concretion; there was abundance of Serum lying about the outward Parts of the Brain: The other Parts were all found and untainted.

There is nothing more frequent in the opening of Bodies, than to meet with extravalated Serum in the Parts and Cavities of it. But I have obferv'd it especially in the Bodies of such as have dy'd through a general Coagulation of the Blood. or rather a particular one, there being an Obstruction in some of the Bowels. By general, I mean that which is in malignant Fevers proceeding from Coagulation; by particular, that in the Apoplexy, several Diseases of the Lungs, Obstructions of the Entrails, and hard Swellings. Whence we very often find in Persons that die of an Apoplexy, abundance of Serum swimming both without and within the Brain. In fuch as die of distemper'd Lungs, it is found in the Cavities of the Breaft. and fo on : And this dislodging of the Serum is rather to be reckoned amongst the Effects than Caufes of the principal Disease, in as much as it discovers it self but a few Days or Months before Death.

Death. Which I have principally observ'd in fuch as die of a Polypus in the Heart, who a little before Death begin to be afflicted with an ædematous Swelling of the Feet, then turn hectical, and at last fall into a Dropsy. To this agrees what I have observ'd concerning the Asthma, and other pectoral Difeases, in which there is some Obstruction in the right Auricle, or right Ventricle of the Heart: as a Dilatation, Aneurism, Polypus, Offification, and the like, which hinder the Blood from discharging it self out of the right Ventricle of the Heart into the Lungs. In these Diftempers, I have observ'd a Tumor in the outer Part of the Right Hand, coming on gradually, of a natural Colour, or formewhat pale; which, upon the hastening of the Distemper to produce its fatal Effect, has been raifed higher, and expanded it felf thro' the whole Arm. Whenever therefore any one shall take notice of this Tumor in the Back, and foon after in the Hollow of the Hand, and that it is attended with a Difficulty of breathing, he may be bold to affert, that there is some Obstruction about the Right Ventricle of the Heart, or its Auricle, as will appear more evidently upon the Diffection of the Corple. on the rest of the Boure at Benefit and the

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CHAP. XI Coursed bus sed-

Several Histories of Persons stung with the Tarantula.

HISTORYL

N the Year 1689, a Noble Woman of Lecce returning out of the Country to the City, stept aside into a Wine Cellar, whence after a little Stay there, the returned home; and as the was employing her felf about her Houshold Affairs, felt Iomewhat like the Bite of an Emmet in her Right Thigh. In the mean time, not regarding to flight a Matter, she went to Dinner; but she had scarce begun to eat, before her Thigh and other inferior Parts were gradually feized with a Numbness, so that the was not fenfible of any twitching. Hereupon the leaves her Dinner, retires to her Chamber to look to her Thigh; and found in the Place that was bit a small Tumor, about the Bigness of a Pea, of a dark reddish Colour, and somewhat inclining to blue, Forthwith she apply'd to it Treacle and bruifed Garlick mir'd together, and at the same time found her self taken with a violent Anguish at Heart, and great Difficulty of breathing. A little after, being got to Bed, there came upon her an univerfal Trembling, and that with such Violence, that two robust Men could scarce hold her. Not long after, she was taken with a grievous Pain in her Joints and Toes; and so great was her Pain, that the could hardly bear the Weight of a flight Linen Smock that was put upon her. The Physician being call'd, lanc'd the Part affected feveral ways, and then apply'd to it Treacle and bruised Garlick mix'd together, and gave gave inwardly Confection of Alkermes with generous Wine, but all to no purpose; for Loss of Speech and Difficulty of breathing increas'd upon her; and she found, she said, her Tongue so pull'd in, that she could not get her Words pronounc'd. All these happen'd in the Compass of three Hours after she was bit; and to these were added a great Thirstines, Want of Sleep, Pain at Heart, Loss of Appetite, and many other Symptoms. Whence her Parents began to suspect there might be something of the Sting of the Tarantula in the Case (the they found it not in the Place affected) and thereupon advis'd the Patient to dance; but with Tears running down, she told them, that the Pain of her Joints, and the total Loss of Strength made

it impossible for her to do that.

But the Disease growing still more violent, the Musicians were fent for, who standing by the Bedfide, ask'd the Patient what was the Colour and Size of the Tarantula that stung her, that so they might fall upon the Tune that was peculiar to it; and when the made answer, that the could not tell whether the was flung by the Tarantula or Scorpion, they play'd at a venture two or three different Kind of Tunes, which had no manner of Effect upon her; but upon the hearing of a fourth different from the other, she began to figh; and not being able to moderate the most vehement Impulses raised in her by the Musick, without any regard to Modesty, sprung out of Bed almost quite naked, fell a dancing with great Eagerness, and so continuing for three Days in the usual Method, was freed from all the Symptoms. But the' the Patient kept very well all that Year, yet every Year after, especially about the Time of her being ftung, the Symptoms are renew'd, and there is a Pain, Tumor, and reddish Colour in the Place e telimid bur aire

that was flung; but then these are all remov'd by the Dancings we have already describ'd,

HISTORY II.

Another Lady also of the same City happening to be stung by the Tarantula, was taken with the same Symptoms, more or less violent; but by dancing according to the Custom of the Country, turn'd them off, and was very well all that Year. But every Year after, about the wonted Revival of the Poilon, her Toes were seiz'd with a most violent Pain, by which they were instam'd; and by the falling down of the Instammation, there slow'd out at the Nails a thin and most sharp waterish Humour, that grievously ulcerated the adjacent Parts. Upon these Accounts, the Lady being oblig'd to dance, after the Exercise was over, sound her self presently cur'd of the foremention'd Symptoms of her Toes and whole Body, and even the Nails of her Toes fell quite off.

HISTORY MINISTRA SALE

An old Man of about 70 Years, and of a pretty strong Constitution, born in the City of Nardo near Lecce, towards the Beginning of the Month of July, laid himself to sleep in the Fields, and particularly in a Corn-Yard about Mid-day; he happen'd suddenly to be stung with a slender Prick; upon which he wak'd, and clapp'd his Hand hard upon the Place that was stung; afterwards baring his Thigh, he sound a black Scorpion lying dead by the Part assected. A little after, he was taken with a heavy Anguish at Heart, an universal Faintness, Pressure in the Breast, Weakness in the Head, and other Symptoms. The Disease was so far from abating through the Means that were us'd both A a 2

inwardly and outwardly, that all grew worse; and the Patient being kept sast a Bed, clapp'd his Hands, call'd for Vine-Branches dipt in Water, had a great Desire for Musick and Dancing, and made a great Motion with his Feet as he lay upon the Bed. Mean time in came the Musick, upon the hearing of which the old Man was wonderfully pleas'd; but yet through extreme Weakness, and continual Pressure of Breast and Heart, he cou'd hardly be mov'd from one side to another; so that in a few Hours after, he was seized with a violent Pain that carry'd him off.

HISTORY IV.

A Country Youth about Nardo having got a Melon, that had a natural Hollowness in it, wherein lay a Scorpion, first threw off the Scorpion, and then eat up the Melon. In less than two Hours after, he was taken with a most severe Cholick, presently after with a Fever, and most satal Symptoms both of the vital and natural Region; the Violence of all which brought him to his End the third Day. He also was mightily pleas'd with the Musick and Dancing, and wou'd always have the green Leaves of Reeds by his Bedside. Whence we inser, that he dy'd by the Virulency of the Scorpion.

HISTORY V.

Of the Virtue of the Lapis Indicus, or Indian Stone, commonly call'd Serpentinus, against the Stings of Scorpions.

This Stone is found in the Head of the Indian Serpent, with us Cobra de Capelo; and by the common Consent of all that write of the Product of that

that Country, is believ'd to be a Specifick to draw out Poilon from any Part that has been frung by a venomous Creature. It has nevertheless been difcover'd, by the repeated Experiments of the most accurate Rhedi, made on it about the most powerful Poison of the Oil of Tobacco, Vipers, and African Scorpions, that its Virtue of fucking out Venom is only pretended and false, as may be seen by his Letter to Kircherius. It was long before I cou'd any way quit the Opinion of fo great a Man, because of the great Weight of the Experiments which he has made in the Court of fo great a Prince: But having received most acceptable Letters, when I was employ'd in writing these things. fent me to Rome by my Father, from the very Learned Father John Dominicus Putignani, of the Society of Jesus I chang'd my Opinion, as having understood from those Letters, that the Virtue of the foremention'd Stone cou'd not be altogether pretended, but partly true, of which that Learned Father has made Experiment at Paula, a City of Calabria. The Substance of the foremention'd Letter is this:

"Upon my Departure some Years ago from " Sicily, I took along with me fome of the Ser-" pentine-Stones, which were given me by a Re-" ligious Gentleman that was lately come there " from Portugal. I went to Paula, a Town of Ca-" labria, where I staid for some time. Mean time "one of the Pealants of Calabria had his Neck " frung by one of the Scorpions of that Country " in the Month of August, but making a slight " Matter of it, us'd no Remedy; and therefore " most fearful Symptoms coming upon him; he " was brought into imminent Hazard. Three "Days being pass'd, upon Information of his " Case by his Friends, I presently went to the " Pati-Aa a

Patient to make an Experiment of the Virtue of these Stones, When I came I found him in a " dying Condition; his Son shew'd me the Part of his Neck that was flung, which had a little a Escar grown over it. After having made an incision with a Lancet, I presently apply d one " of the foremention'd Stones, which fluck very 4 close to it; and within four or five Minutes of an Hour, the Patient began to figh ftrangely, and to fetch his Breath pretty fast, and in about a quarter of an Hour was perfectly cured, many of his Countrymen being prefent. I took notice " when I first apply'd the Stone, that it was pre-" fently to be discharged of the Polion that it " ficked in, by infusing it in Milk, by which ineans the Seeds of the Venom were taken off. a Altho' the Patient was freed from the Difeafe in a quarter of an Hour, yet for his greater Safety " Days; and I observed every fresh Application, " it always left in the Milk fomething of the ve-" nomous Substance, till at length it did not co-" lour it at all ". This is the Substance of the Letter fent me by that Learned Father, writ in Italiant one artist bend estatemed you now

Whence we must infer, that the foremention'd Stones do truly extract Poison; but because there are many counterfeit ones sold for a small Price by the Arabians and Indians, who herein put the cheat upon us the Inhabitants of Europe, as the foresaid Mr. Rhedi acknowledges, it is therefore no wonder that very often they sall short of Expectation. By the way, we must call to mind the Rules laid down by Mr. Boyle, in his Treatise concerning the Unsuccessfulness of Experiments; where he discourseth at large of Experiments that succeed not, the they be really true ones.

HISTORY VI.

1950年,安徽、安徽、1969年2月,120日日本大学中国 Francis Muffel, a Pealant of the Province of Lecce, ten Years ago, about the Beginning of July, was frung in the Left Hand by a Tarantula, as he was bufy gathering Ears of Wheat. Having kill'd the Spider, he went home with his Company but by that time they had gone half way, on a fudden he fell down upon the Ground, as if he had been feized by an Apoplexy; after which he cou'd not breathe without Difficulty, his Face, Hands, and other Extremities turning black. His Companions that knew the Cause of his Distemper, fetch'd the Musick; upon the Sound of which the Patient by degrees came to himself, beginning to figh, and to move first his Feet, then his Hands, and fo the whole Body; at last getting upon his Feet, he fell a dancing very keenly, and fetch'd up fuch dreadful Sighs, that he almost frighted those that were with him. As he danc'd about, he bore in his Hands green Twigs of Reeds and Vines moisten'd with Water; sometimes he rowl'd himfelf upon the Ground, and firuck very fiercely upon it with his Feet. Two Hours after the Mulick began, the Blackness of his Face and Hands went quite off; and having gone through the Dances for three Days after the usual manner, and so forcing out Sweats, he was restor'd to perfect Health. Every Year, about the time he was flung, the Pain in the Part affected returns with all the foremention'd Symptoms, but not so violently, and unless the Paroxysim that comes creeping on be prevented by Musick and Dancing, he is feiz'd with it on a fudden, fo that about the fulpected time he is often found by his Friends lying in the Fields, fruck down with the fatal Difease; but A and then

then the Musick being brought, he is presently cured again.

HISTORY VII

One Peter Simeon, of the Province call'd Terra d' Otranto, a young Man of a hot and dry Conftitution, living in the Country, was flung one Night under his Left Ribs by a Tarantula, which perhaps was of the blackish Kind, as may be gather'd from the enfuing Symptoms. He presently found a grievous Pain in the Place that was flung, and forthwith fell down upon the Ground, feiz'd with a Chilness all over the Body, a standing of the Hair. Pain of the Share-Bone, Extension of the Yard, &c. His Legs were feeble, he fell a fighing and wailing, and complain'd he was like to be fuffocated, endeavouring to cry aloud, but was not able. Next Morning they that were about him carry'd him to the Town, brought the Mulick to him and that Kind of it was most agreeable to him, which the People of our Country call Catena. Upon the hearing of the Musick he began to dance, Sweats came very fast upon him, he kept waking for a Week, drank pure Wine, had no Stool for four Days, his Fancy led him to a Funeral Song, he wou'd be plung'd into Water, lov'd a ruddy Colour, mortally hating what was green, which he would tear in Pieces, and trample under his Feet. In the Night time he wou'd be fcratching his Heels with his Hands; by which means he was formewhat dispos'd to sleep. He eat little or nothing, but dancing almost a whole Week, was perfeetly cured by Sweating and Musick. This Hiflory I have taken out of Epiphanius Ferdinandus, his 17th Observation, principally with this View, that the Symptoms of this Poison might be set in a clearer Light to be farther discover'd. HISTO.

desertioner that does very made. Lieb tecesor from after the thin, my viry NOTETH I was the transfer of the transfer to the viry viry viry.

Tis a Maxim, In rebus Phylicis affigende funt potius Pondera Credulitati, quam addenda Pluma. In Matters of Phylick, Credulity should have its Wings clipped, rather than be help'd to fiv. One of the Physicians of Naples thinking very seriously of this not long ago, thought he ought not to give any Credit at all to the fo much talk'd-of Effects of the Tarantula, unless he made Trial of the Matter upon himself. Whereupon some Tarantula being brought to Naples from Apulia, in the Month of August, 1693. he put two of them upon his Left Arm betwixt his Shirt and his Skin, before fix Witneffes and a Publick Notary. It was not long before he was ftung, and he found a Prick dike that which is made by an Emmet or Fly, and at the same time a Pain in the jointing of the Ring Finger of the fame Arm. Next Day the Part that was flung grew reddish, and there was round about it a blue and yellow Circle: The third Day the yellow Circle fwell'd, with a Continuance of Pain the fourth Day the Swelling of the faid Circle went off, and the Part that was ftung continu'd of a Colour fomewhat red and bluish, but he scarce felt the Pain. Thus the Difeafe held without any fresh Onfet of Symptoms for fifteen Days: The fifteenth Day, a black Scurf grew over the Part that was flung, which being taken off, another came upon it, and then also the yellow and blue Circle appeared. A Month after the ftinging, the Patient was feiz'd with a flight Weaknels, which I do not know whether to attribute to the Virulency of the foregoing Difeafe, or to other occult Causes. Soon after he went home to his own Country to retrieve his Strength, and returned to Naples three Months after, where he sisting in DOW now lives, and does very well. The feventh Day after the ftinging the Tarantula dy'd. From this Hiftory, which was imparted to me by my very good Friend Dr. Bulifonius, we may gather, that a Tarantula transported to foreign Counties does not produce fatal Symptoms by ftinging; and that the Heat of such Countries is not active enough to elevate the Venom to a due Pitch.

CHAP. XII.

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Some things proposed by way of Doubt, concerning the genuine Nature of this Poison.

Is the common Quality of all Poisons, to display their whole Force suddenly, and with a violent Fury, upon the Life of Animals; and this they do not with a bulky, but in a finall and fometimes unperceivable Quantity. Generally Poisons operate either by curdling or dissolving: and some things inoffensive to Bealts, are fatal to Men, and & contra. So that itis not the Activity of the Poison, and a venomous Quality in the Substance that's requir'd for doing the Injury, so much as a particular Disposition and Analogy of the Pores in the Parts of an Animal, proportion d fo as to receive the Poison. Scaliger, Exerc. 33. 6. 2. gives an Instance of a Reaper, that being heated under the fcorching Influence of the Sun, and extreme Thirsty, drank some Cupfuls of Water in the Height of his Heat, and fell down dead foon after. Now in this Cafe the Water was like Poison; for the Humours being mightily rarify'd by the Heat of the Sun, were fo dispos'd, that as foon as it join'd 'em, its Chilness produc'd an immediate mediate and fatal Coagulation. And I have provid at large, in my Book of Mesbanica Medicinalia, that Pleurifies, Quinfeys, and fach other Difeases, proceed from fudden Cold by the fame Mechanical Contrivance.

In corrolive Poisons, we observe that their edged and cutting Particles corrode and diffolve the folid Parts, and curdle and congulate the Fluid. The Effect upon them both is the fame, namely, Solution; which in the Fluids is Congulation, and in Solids Corrolion. When the Virulency of the Pox first seizes a Man, it produces congealing Effects as we may gather from the Buboes, Nodes, Stiffhels in the Joints, Se. But when the Difeate advances, and the venomous Matter is much exalted by repeated Circulation, it produces diffolving Effects, fuch as Rottennels in the Bones, piercing, boting Pains in the Parts, Leannels, Fevers, & And this gives us to know, that the Production of the Symptom more than another requires a particular Disposition in the Body for receiving the Venom.

The Tarantula breeds in Puglia, the most parch'd Country of all Italy; and as the Constitution of a People is always of a piece with the Temperament of their Climate, so the Natives of this Country are of a very hot Constitution, impatient, and very much subject to acute and inflammatory Diseases, from whence we make an obvious Inference, of that vehement Volatilisation of the Juices, that is sometimes so observable in the Blood of the Apulians, that the subtiler Part being enhald, there remains nothing but an earthy first Part, which readily breeds hypochondriack and melancholick Disorders. So that whether we consider the Temper of the Inhabitants, the Nature of the Climate, or the Disposition of the poisonous Ammal, we'll find in all of est the highest Acti-

vity, Volatilifation, and Impetuolity, which may ferve to direct us in forming an Opinion of the

Nature of the Poilon of the Tarantula.

Upon a narrow and attentive Scrutiny, we'll find that the Nature of Poison deriv'd either from mad or virulent Animals, confifts in a Composition of too active, volatile and rapid Particles, which being mix'd with the Blood, scour over all on a fudden, and by raifing a violent Commotion, diffolve the mutual Bond of the constituent Parts of the Blood, upon which all the Parts being left to their own Tendency, and falling off on all Sides. the Coagulation takes place; which shews it self in Anguish at Heart, Speechlesness, Oppression of the Pulse, Blackness of the extreme Parts, and fuch other Symptoms. To this purpose is the Observation of Benivenius, mention'd in his Histor. eap. 56. I bad a Servant, says he, that being flung by a Scorpion, was feiz'd with such a sudden and cold Sweat all over his Body, that he complain'd of being wrapt in the coldest Snow and Ice; but be was presently cur'd by a Dose of Venice Treacle in strong Wine.

This Advance is further confirm'd by many Observations made upon mad Animals. Though Man is void of all Poison, yet sometimes his Spirits are so exalted and irritated by Anger, as to affume in a manner a venomous Nature; for if in that actual Fit of Anger he happens to bite one, a venomous Madness has been known to enfue. This is more manifest in Dogs, Cats, Wolves; Mules, and fuch other Animals, provok'd to Anger, which turn thereupon mad, and communicate 2 venomous Madness by their Bites. It can't be alledg'd, that these Animals had Poison lodg'd in their Body before, since all the Force of their Venom confifts in the raifing of the Humours and Spirits to the highest Degree of Exaltation and Rage. In July 1691, I faw a Mule at Padua that turn'd

turn'd mad, either thro' an over-bearing venereal Turgency, or thro' the violent Heat of the Summer; and springing out of the Stable, threw down a Man, whom he bit in several Places of the Arm and Neck, and kick'd with his Heels; upon which the poor Wretch died a few Hours after: but before he dy'd, he grew mad, and run at the People

about him with Intent to bite em.

The excessive Activity in the Blood and Climate of the Apulians, is further confirm'd by this Remark, That there's a greater Frequency of melancholick and mad People in Puglia than in any other Country of Italy; which gave Occasion to the erecting at Naples that celebrated and great Hospital of incurable Persons, in which great Numbers of Madmen are kept. A further Confirmation may be taken from the great Frequency of mad Dogs, whose Madness is justly attributed to the scorching Heat of the Air. But such is the Divine Bounty, that those who are bit by mad Dogs are speedily cured by repairing to the Tomb of St. Viti, about 40 Miles from Lecce, where the Intercession of that Saint procures em a favourable Return from the Almighty.

Now this high Exaltation of the Venom, or the raging Fury of the Spirits rais'd to a venomous Pitch, which we have ascrib'd to other Animals, may justly be attributed to the Tarantula, as the sole Fund of its Venom. The Tarantula, and other Spiders, are generally placed by Authors among poisonous Animals; And though Harvey, de Gener. Animal. exerc. 57. says, he could observe no Difference between a Prick made in his Hand with a Needle, and another made with the Sting of a Spider; yet Dr. Lister, de Insect. Angl. says there is this Difference, That the Place which receives the venomous Puncture gathers it self in a Knot, and assumes a Redness, Heat, and Instanture.

mation,

mation, as if 'twere preparing to expel the nocivo Porton.

But the all Spiders are venomous, and their Bites are pernicious, yet those are more venomous which breed in very hot Countries; as it appears from the Tarantula of Puglia, and the Scorpions both of that Country and of Africa. For the Homours of the Tarantula being raised to the highest Pitch of Exaltation by the fiery Heat of the Apulian Air, tis no wonder if that Animal degenerates to a venomous Madnels, as other Animals are wont to do. And hence 'tis that the Tarantula, which frequents the Mountains upon the Confines of Apulia, is inoffensive, and its Bites do no harm in the Winter: Nay, if you transport a Tarantula to foreign Countries, it shall do no harm in biting or ftinging; because, in such Countries, and in such a Season of the Year, its Humours

cannot be heighten'd to the due Pitch of Venom.

This Venom therefore, in respect of it self must consist in the highest Degree of Exaltation; but with respect to the Diversity of the Constitutions of Men, it produces various Effects. Among which, the principal are Condensation, and Congulation, and an Oppression of the Spirits; these being sufficiently manifest in the Anguish at Heart, the low Pulse, the Difficulty of breathing, the black or livid Colour of the Face and extreme Parts, the Coldness of the whole Body, the Swelling, Numbness, Pain, and Inflammation of the Part affected, the Cure of the Discase compass'd by the Spirit of Wine impregnated with Rolemary Flowers, or the Effence of Rolemary Flowers, Sweat procured by violent Leaping, the continual Pains of the Head and Bones, Swoonings, Inaptency, Fear of Suffocation, and a thouland other Symptoms, that appear in the enfuing Years after the Person is stung. Whether this Condensation

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proceeds from the acid or the alcaline Parts of the Poison, let better Heads determine. This I am fire of, that some Alcali's are endow'd with the Virtue of dissolving, and others of curdling; and the most judicious Authors say the same thing of Acids; so that in so doubtful a Case, 'tis not Speculation, but Experience and Trial that can find out the Truth. I wish Physicians wou'd spend less Time in these fruitless Speculations, upon the Consideration that the first and immediate Causes, and the smallest Properties of natural things, are involved in Obscurity, and brought to Light with the greatest Difficulty.

The Poison of the Tarantula is not elevated to so high a venomous Degree as that of Vipers, but it goes far beyond it in the violent Motion of its constituent Parts, and the other Qualities of Motion: So that Willis, cap. 7. de Morb. Convul. said justly, That the Poison of the Tarantula mix'd with the nervous Juice, is too mild quite to extinguish and sink the animal Spirits, or to disperse em entirely when they are distracted; and that it only puts them to slight, and then excites em to slight Convulsions, that have scarce any worse Symptoms than Pain.

And the Poisson of the Tarantula, by the Activity of its virulent Substance, does almost dispose the Humours to Coagulation; yet, by vertue of the brisk and lively Motion of its constituent Parts, it hinders, in some measure, the total Coagulation of the Humours, and by giving a Fillip to the Spirits and Humours, prevents their final sinking. Nay, sometimes such is the Agitation of the Spirits, that they degenerate into involuntary and purely spasmodic Motions; and accordingly some Persons stung by a Tarantula, are thereupon seiz'd with violent Convulsions. Shive-

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rings, a Looleness, and many other involuntary.

I leave the impartial World to judge, whether these doubtful Advances of the Nature of this Poisson are true, or at least likely. This I must confess, that I take more Pleasure in observing the standing and constant Motions of Nature, relating to the Diagnosticks, Prognosticks, and Cure of Diseases, than in such idle and sleeting Speculations, which last only till they are jostled out by an opposite Notion. Upon which Head, Cicero de Nat. Deor. said well, Opinionum Commenta delet Dies, Natura Judicia consirmat; (i.e.) Time overturns the Fictions of Opinion, but it consirms the Judgments of Nature.

CHAP. XIII.

A brief Enquiry into the Effects of Musick, in this and other Diseases.

A LL the World knows, how wonderful and various the Effects of Motion are; Generation, Corruption, and all fublunary Alterations are the Product of Motion: Whatever lives, whatever grows, and whatever undergoes the sensible Mutations of Life and Destruction, is in a perpetual Motion. 'Twas from this Consideration, the wifer Sort of Philosophers made Motion and Matter the two grand Principles of Things. And considering that the Operations of Motion are performed by the Contact of Bodies, 'tis no wonder that the slightest Impressions of Motion produce admirable Effects, by communicating the Impetus of the Contact to the very remotest Parts; as Borelli has demon-

demonstrated in his golden Book de Vi Percussionis. Tho' gouty People are unfit for all manner of Exercife, I am of the Opinion, that constant Conversation with their Friends, or the reading of Books with a loud Voice, may do 'em the fame Service with Exercise; for in speaking, the Muscles of the Mouth and adjacent Parts are contracted and exercis'd; and by vertue of that Contraction. the Expression and Circulation of the Liquids that lye within the Verge of Contact, is performed with more Expedition and Facility; and thereupon all, even the remotest Liquids, circulate with greater Velocity. That speaking loud, as well as finging, is justly reckon'd among the Kinds of Exercise, is manifest from the excellent Words of Plutarch, in his Treatise de tuend. bon. val. It may be alledg'd, (fays he) That 'tis needless to prescribe Exercise of the Body for Students, upon the Plea, that their daily vocal Disputes are an admirable Sort of Exercise, conducive not only for Health, but for the Strength of the Body; not that Strength that beats out the Muscles and bends the Skin, but that which gives an internal Force, a genuine Vigor to the vital and more principal Parts. And indeed, confidering that Voice is not a slight and superficial Agitation of the Spirits, but that which reaches the very Fountain and Viscera, which increases the Heat, subtilises the Blood, purges the Veins, opens the Arteries, digefts the Aliment, keeps the Superfluous Humours from growing thick, and finking like Dregs in their Receptacles ; upon these Considerations, I say, Students ought to accustom themselves to this Sort of Exercise. And hence it comes to pass, that religious Persons who live in Cloyfters are very healthful, notwithstanding they use but little Exercise for they employ themfelves Night and Day in Choirs, in finging the Praises of God, and pouring forth Prayers, compensapensitive thus the Motion of their Body with the

Frereile of the Voice shy which Means they digest well, fand enjoy a longer State of Health than other Men. Twas with the fame View that Afclepiades cur'd Difeates with a hanging Bed, in order to extenuate Difeufes (as he call'd it) by moving and exercifing his Patients in fuch a Bed and in travelling through Dalmatia, I was inform'd that fome of the Dalmations retain that Method of Cure to this Day. To be carry'd in a Coach or a Chair is likewife a Sort of Exercise; the the Body is not much shak'd by that Exercise, yet the new and continual Impulse of the Air upon the Body, and that Motion, as gentle as 'tis promotes the Course of the Humours, increases Transpirate tion, and clears the Body of Excrements. I conchide therefore, upon the foregoing Reasons, that gouty People ought to apply themselves often to the Exercise of the Voice, and riding in a Coach This I have mention'd with Intent to show, how great Effects may flow from a small Motion, and give a clearer View of what I am about to advance concerning the Effects of Mulick Mulick is one of thole Motions that fmartly frikes the Air, and disposes it to brisk Undulations. Now these Motions, or swift Undulations, being communicated by Contact to the Blood and Spirits, make different Impressions upon em fometimes by exciting them to Motion, fometimes by composing them to Reft and the Variety of Sounds raifes various Ideas of things in our Minds for that fome Conorts inspire as with Courage, others with Chearfulness, and others again with Piety, according as the Spirits and Humours are affected. The violent Motions rais'd in the Spirits of Soldiers by the Sound of Drums and Trumpets, are evident from their Boldness, Alacrity, and Readiness to under-्याधिgo

go Danger, and their eager Warmth in engaging the Enemy. Those who are forrowful, angry, or affected with other Passions of the Mind, are excited to Chearfulness and Joy, by the gentle and agreeable Harmony of Musick, and by the Conti-

nuation of the fame are lull'd afleep.

That the above mention'd Undulations of the Air have an Influence upon the folid and fluid Parts of the Body, is manifest from the various Exam, ples of Brutes, as well as from the grating of the Teeth. A great many are to affected with the dilagreeable Undulation of the Air occasion'd by the Motion of a File or a Saw, that their Teeth grate, and are uneasy o and that because the Particles of the Air thus mov'd, being disproportion'd to the Pores of the Nerves inferted in the Roots of the Teeth, do fo diffort and twitch 'em, that they are either benumb'd or affected with Pain. Further, all of us are fensible that upon hearing an unwonted and agreeable Harmony of Mulick, we feel first a gentle shivering over the Skin, and a Sort of Erection of the Hair. Several Authors testify, that Brutes are likewise affected with the Sound of Musick. Strabo affirms, that angry Elephants are appeas'd with Musick, that Bees are delighted with the Sound of Metal, Swans with a Harp and Singing, and Dolphins with Musick, have feen my felf a Dog at Ragufa in Delmatia, that was fuch an Enemy to the Sound of the Harp, or any other Musical Instrument, that upon hearing it, he fell a howling and almost a crying.

Alexander de Alexandro gives yet a more curious. Instance, in his Dies Geni. lib. 6, cap. 5. where he acquaints us that Theophrassus affirm'd, That Musical, Instruments harmoniously touch'd, would cure the Bites of Vipers, Asclepiades made the same Remark; affirming that frentick and brain-sick Permark;

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nothing more than by the Harmony and Confort of Voices. Tis faid likewise, that Ismenias the Theban cur'd several Persons of the Sciatica, by playing on the Flute or the Harp. See more of this Nature in Aldrovandus de Inset. lib. 5. fol. 621.

It being manifest from the Premises, that Musick ravishes healthy Persons into such Actions as imitate the Harmony they hear; we eafily adjust our Opinion of the Effects of Musick in the Cure of Persons stung by a Tarantula. 'Tis probable, that the very swift Motion impress'd upon the Air by Mufical Infiruments, and communicated by the Air to the Skin, and fo to the Spirits and Blood, does, in some measure, dissolve and dispel their growing Coagulation; and that the Effects of the Diffolution increase as the Sound it felf increases, till, at last, the Humours retrieve their primitive fluid State, by vertue of these repeated Shakings and Vibrations; upon which the Patient revives gradually, moves his Limbs, gets upon his Legs, grouns, and jumps about with Violence, till the sweat breaks and carries off the Seeds of the Poilon.

Nor is it wonderful, that Musick should have so great a Virtue of dissolving the venomous Coagulum of the Spirits and Humours, considering that it chiefly and immediately affects the Organ of hearing, that lies very near the Brain; and affects even the Brain it self, or the minute or sine Fibres in which the Spirits lye drooping and almost sunk, till the continual and forcible Contact of the Musick makes them march out upon the Membranes of the Brain; upon which having partly recovered their Motion, they enter with greater Facility and Agility into the little Tubes of the Nerves and Fibres, and so recover their former Correspondence

dence with the Humours and folid Parts. The Force of the Air thus mov'd by the Impulse of the Musick, is increas'd and quicken'd by the ardent Heat of the Sun, and of the thin Air of Apulia; fo that the Sound strikes the System of the Spirits. Humours, and Nerves, with more Violence; and its greater and more violent Impulse raises a Fermentation in the Humours, and reftores them to their due Pitch of Exaltation and Fluidity. Now all these Effects can't be compassed by Diaphoreticks taken inwardly, as intimated above; for before fuch Medicines can reach the Blood, their Force is in a great measure impair'd, and besides, they operate only upon the Fluids, and not upon the Solids: Whereas the mufical Sound affects at once both the Solids and Fluids, and that very forcibly, and by vertue of its Percullion upon the finall Fibres of the Brain, in which the Secretion and Diffribution of the nervous Juice is immediately perform'd.

This, Reader, is what I thought fit to communicate to thee concerning the Tarantula.

Nov. 13. 1695.

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Blistering - Plaisters.

The PREFACE to the Reader.

T Perceive the very Title of this Differtation will pro-I voke many of our new phylical Sectories in Italy to fall upon me with Investives; to cry out, What does this Galerical Spark mean? This Man that's altogether unacquainted with the new Method of Practice? To what purpose does he teaze us with the vain Offentation of the Ancients? But if thefe Gentlemen will but peruse the two foregoing Books of Practice, they'll be senfible I am not the Man they took me for. I fland up for the Liberty of Phylick, and am ty'd neither to the Ancients nor the Moderns: I follow both, where Truth is their Guide; and, like a Refirer of Metals, pick the Gold and Silver of Precepts out of the Drofs both of the modern and ancient Phylick. In Imitation of the Coans, I adore repeated Experience, and defire nothing

The Preface to the READER. 375

nothing more earnessly, than that Physicians would approve themselves like the reviving Offspring of the He-roes of that School, and lay afide their lazy Despair in the way of Inquisition; that they would keep up, as much as they can, the Majesty and Weight of Nature. and apply themselves with Diligence to the Illustration of Physical Matters. To come to Blistering-Plaisters The Arabians invented them with Intent to renze up Persons affected with sleepy Diseases, such as a Lethar-gy, an Apoplexy, &c. But the Physicians of those Times were altogether ignorant what Mechanism their Virtue was founded upon, and what other Difeates they were proper for besides those above-mention'd. The Doctors that came after, contenting themselves with the Name of Revulsion that the Arabians gave em, and being ignorant of the mechanical Way of this vulpon, went raply on in the Dark, and, pursuant to the lucky or unlucky Event of Bliftering-Plaisters, were split into two Factions; the one recommending, and the other disproving the Use of such Remedies. In this our Age, Helmont, either forgetting or contemning the Footsteps of Nature, bas disputed very warmly against the Use of Blistering-Plaisters, and gave Being to a Self that rejects these as well as the other Remedies of the Galenists. And indeed I was for a long time of their Mind, till I was taught by observing in many Hospitals of Italy, the Progress, History, and Effects of Diseases, that Bliftering Plaisters are sometimes very serviceable. Being thus undeceiv'd, I discarded their Opinion; and throwing off the Shadow of Prejudices, that I had taken from the reading of new Books and the Authority of Precepts, Lapply'd my felf wholly to a Scrutiny of the Advantages and Disadvantages of Bliffering Medicines. At the same time I made a Trial upon live Animals, by infufing into their Blood the Tinsture of Cantharides, and applying Blistering-Plristers to their Skin after 'twas shav'd smooth : And B b 4 having

baning thus made a great many Observations, both practical and anatomical, I tack d'em all together for my own Use; and when these fell into the Hands of some learned Physicians of this City, they requested me o publif cm in Company with the foregoing Trads. For my part, I took the Subject to be invidious; and fearing all the new Doctors would fall upon me in a Lump, declind it for a long time : But at last, being oner come by their Solicitation, and encouraged by a Treatife de Stimulis, lately set forth by my learned Friend Dr. Bellini, I pick'd out what seem'd to be most useful, and drew em up in the four ensuing Chap-

As I offer em candidly to the Reader, without leaning either to the new or the ancient Sells; so I expell the Reader, after an accurate Survey, will either comply where he finds me in the right, or correct my

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Rome, March 15. 1696. Postune has delimited next engranty again

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Some Experiments of the Effects of the Cantharides.

Ractitioners have argued very warmly against one another upon the Use of Blistering-Plaisters, some approving and some disproving em. This Contention is owing either to the private Fends occasion'd by the Diversity of Sects. or other Causes, as that between the Helmontists and modern Galenifis, and the like; or else to the customary way of judging of the Effects of Blistering-Plaisters, not so much from the Nature of the Thing it self, as from Opinion and received Hypotheses. 'Tis no wonder, that those who act so inconsiderately, and never think what the Variety of Place, Temperaments, Causes, and Ages requires; 'tis no wonder, I say, they should fall into Mistakes and deplorable Divisions. For my own share, pursuant to my wonted Custom of tracing the Footsteps of Nature, I shall here briefly lay down what I observed with Patience upon this Head in several Italian Hospitals. And while I vent nothing but what is true and of Use to Mankind, I am under no manner of Concern for the sinister Construction of others.

EXPERIMENT I.

Rome, May 1692. I ty'd a Mastiff-Dog upon a Table, opened his right Jugular Vein, and injected with a Syringe two Ounces of the Tincture of Cantharides, which I had made by taking two Drains of the Powder of Cantharides to fix Ounces of the Water of Carduns Benedians, and digesting them three Days upon Ashes. Upon the Beginning of the Injection, the Dog vomited up watery and flimy Matter, and voided at Month a viscid Sort of Spittle, till I had finish'd the Injection of two Ounces, and few'd up the Wound and fprinkled it with burnt Vitriol. This Operation was no fooner over, than he fell down as if he had been dead. He refus'd to eat to the last Minute of his Death, and was extreme thirsty; infomuch that my Servant, mov'd with Compassion, gave him, without my Knowledge, about fix Quarts of Water, which he drank, and presently voided a great Quantity of yellow Urine. In the mean time he howl'd.

howl'd, and continued miserably thirsty; but we gave him no more Water. Before his Death, he was seiz'd with Convulsions. He died, after mise-

rable Howlings, the fourth Day at Night.

Having opened his Carcale, I found that Part of the Neck, upon which we had made the Experiment, was perfectly mortified and foetid. In the right Ventricle of the Heart, the Blood was very black and copious, with little or no Coagulation, and some Drops of Oil, as 'twere, upon the Surface. We found there a small Polypus continuous to a Clot of Blood. In the left Ventricle of the Heart we found two little Polypus's, and the Blood diffolv'd, but extreme black. The Lungs and the other Viscera were found. In the Urine-Bladder we found not the least Bit of that slimy Matter that naturally guards the Infide of it; perhaps the Acrimony of the Cantharides had gnaw'd it off. The Gall in the Gall-Bladder was somewhat black. The Blood that ouz'd out upon the cutting of the Verns of the Viscera was very black, without any Coagulation, and cover'd with little Drops, like Oil, on the Surface.

EXPERIMENT

Rome, July 14. 1692. I ty'd down upon a Table a young and indifferent big Dog, and injected into his right Jugular two Ounces of the Tincture of Cantharides. The Wound was no fooner fow dup and dress'd as above, than the Dog vomited, and fell down half dead. Two Hours after he held out his Tongue for Thirst, with a great deal of Anxiety. He would not eat, and was extreme thirsty; but I allow'd him no Water. Six Hours after, he expir'd with grievous Howlings. Having open'd the Carcase, I found all the Viscera sound;

but the Blood was very black and dissolv'd, and cover'd in the Surface with little Drops like Oil. The Dog being young, and not very big, and no Water being allow'd him, the Humours were soon dissolv'd and melted down by the caustick Salt of the Cantharides, so that he dy'd in fix Hours.

In both these Dogs, I observ'd upon injecting the Tinctures, that no Part was fo foon affected as the Head, for prefently it nodded and drooped downwards, fo that the Creature could not hold its Neck ftreight. The first Dog hung down his Head immediately upon making the Experiment, and could scarce raise it; but as soon as he drank the fix Quarts of Water, he got to his Legs, rais'd up his Head, and look'd brisker. But as foon as the Water was voided by Urine, he fell down again, and never rais'd his Head more; and died on the fourth Day, half flupid and reeling. From whence an Inference may be drawn, that the Cantharides are chiefly nocive to the Head, and so ought to be carefully avoided in the inflammatory and acute Disorders of the Head: But this is not to be absolutely afferted, till it be confirm'd by Hundreds of Instances.

EXPERIMENT III.

Rome, April 14. 1692. I took eight Ounces of Blood just drawn from the Vein of a Patient, and divided it into two Vessels; in one of which I put a Scruple of the Powder of Cantharides, without mixing any thing with the Blood in the other. The Blood mix'd with the Powder was sooner coagulated than the unmix'd, and afterwards assumed a Lead-Colour and a blackish Surface. Aster some time, a great Quantity of little Bladders appeared all over the Surface; and when they broke.

broke, voided a blackish Serum. At last all the Blood mix'd with the Cambarides, dissolv'd into a blackish and livid Serum; but that in the other Vessel suffer'd no such Changes.

EXPERIMENT IV.

Rome, April 1692. I took the Blood drawn from a Patient, and parting the Serum from the Blood, mix'd with the Serum a Scruple of the Powder of Cantharides. Soon after the mixing, the Powder precipitated to the Bottom of the Vessel, without tinging the Serum with any Colour; only the Serum became a little more liquid and thin, and scarce coagulable. Now, to set this Matter in a clearer Light, I shall here subjoin three Observations made upon Patients that had Blistering-Plaisters apply'd to 'em.

of old in the HISTORY 1. on the case.

Sign a want of the self at

A young Man of twenty two Years of Age, of a bilious Temperament and thin, and cur'd not long before of venereal Bubo's, expos'd himself to the Northerly Winds after he had been very hot before a Fire, and thereupon was seiz'd with a Quinsey, which soon after terminated in a Pleuristy, with a dry Cough, a very siery sebrile Heat, a hard and high Pulse, Watchings, Thirst, thick, gross and very high-colour d Urine: He lay in an Italian Hospital.

When I saw him first, 'twas the twelsth Day of his Illness; and then his Physician prescrib'd him the Powder of Cornachini: Next Day he apply'd fix Blistering-Plaisters to his Body, which was very meagre. The fourteenth Day he was seiz'd with a Delirium, a Suppression of Spitting, a Trem-

bling

bling in the Flesh, Epileptick Motions, an unequal Pulse and Respiration. He voided great Quantities of Urine, and bilious stinking Stools, without any Abatement of the Symptoms. The fixteenth, all things assumed a milder Face; but the next Night they renewed their Rage, with a most copious, universal and glutinous Sweat, that had an acid Smell, and continued to the 21st, on which the Patient expired.

HISTORY II.

A Cook of thirty Years of Age, with a fanguine and bilious Conflitution, red Hair, and a violent Propenfity to Venery and Drinking, was feiz'd, after a great Heat and Cold catch'd upon it. with Convulsions of the lower Mandible, and foon after with Convultions of the Abdomen. In the Hospital they prescrib'd him the Powder of Cornachini, and the next Day four Bliftering-Plaisters, The Application of these was follow'd by Vomitings, convultive Motions, and a grievous Difficulty of breathing; under the Pressure of which Symptoms the poor Man dy'd miserably on the fourteenth Day. During the Epileptick and Convulfive Motions, he retain'd the free Use of his Senfes, both internal and external. I have frequently feen the Powder of Cornachini produce convultive Motions, in fleepy Difeafes arifing from a great Wound in the Head: But in fleepy Diforders that spring from other Causes, I have found this Powder very serviceable, especially if the Veffels are eas'd and empty'd beforehand by a thin Diet, or Bleeding if necessary; for the Sleep vanishes immediately after the exhibiting of that Powder. Of this I had an Instance very lately in a Boy of eight Years of Age, that was feiz'd in the

Sleep, and continued fo for several Hours, till p gave him the Powder of Cornachin, which difpell'd the Sleep entirely. There's scarce a better Remedy than this, in Apopleries, Lethargies, Megrims, and such like Disorders of the Head.

HISTORY III bes no bed

A young thin Woman, eight Months gone with Child, was troubled for eight Days together with Pains in her Belly, and then brought forth a Child. After Delivery the Pains still continu'd, with a notable Differtion of the Belly and having flighted, or rather neglected all manner of Remedies, was advis'd at laft, by a Physician, to have four Bliftering-Plaifters applied to her. This occafion'd a Suppression of the Lochia, which were open before. A few Days after, the Lochia return'd, and her Belly began to fuffer grievous Convulfions with great Pain, infomuch that the could not bear the Preffure of one's Finger; these were follow'd by cold Sweats, with a Coldness in the extreme Parts, the Pulse and Respiration became very low; and, in a word, the was almost dead A few Days after, the grew a little better; but was feiz'd foon after, all on a fudden, with a violent and convulfive Difficulty of breathing, which fometimes turn'd to a Delirium, and with a yellow stinking Looseness that continued for eight Days. In fine, the dy'd on the feventeenth Day of her Illness: laconcia interest at the shoot aint. A effection of the empty of accommod for a claim

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Of the Inconveniencies attending the Use of Blistering Plaisters.

great deal of Sov and has worked an

Here's nothing that follows the Application of Bliftering Plaifters fo foon as Thirft, with a Driness of the Tongue; which sometimes is so great, especially in Persons of an adust Temperament, and fuch as are not delirious, that nothing will pacify it, but continual gargling with Water, The Thirst rages thus violently for about three Days; that is, according as the fharp Salts of the Cantharides are separated from the Blood fooner or later, or in a smaller or greater Quantity; then it relents by degrees sland this Thirst I call Sitis Velicantium. In the Use of Blistering-Plaisters, we ought to be very cautious of prescribing them promiscuously in all Seasons of the Year, and for every Age, Constitution, and Habit of Body, or in every Disease, as the Galenists now-a-days are wont to do; for they are only to be us'd when Necessity requires it, and that in the Cases mention'd hereafter. If they're apply'd without due Caution, a great many Evils will enfue, which ignorant Physicians commonly impute to the poifonous and malignant Nature of the Remedy, and not to the erroneous Indications upon which 'tis prescrib'd. I have sometimes seen the Ulcers rais'd by Bliftering-Plaisters turn to a Gangrene or at least be very hard to heal up a but whether the new Conflitution of the Air that then reign'd contributed any thing in this Matter. Lam at a los : loss to know; only this I must say, I observ'd in the Year 1692, not only at Boulogne, but even at Rome, that Ulcers from any Caufe, and flight Wounds, gangren'd very easily, and sometimes prov'd fatal to Patients, many of whom dy'd in that Season of the gangren'd Ulcers of Blisters. Now the Winter of that Season was very cold, and brought a great deal of Snow and Ice, which in Italy is uncommon; and the fucceeding Spring was very cloudy and wet, which was follow'd by a temperate and showery Summer. In this Constitution of the Weather, did Ulcers and Wounds readily. degenerate to Gangrenes, to the great Admiration of the Surgeons. We ought therefore, in Imitation of Hippocrates, to have an attentive Regard to the general Season and Influence of the Weather. and be very diligent in giving a lively Description of its Nature and Effects. But after all, the UI. cers of Blifters are apt to corrupt and gangrene in any Season of the Year, in such Persons as are Cachectick, Hydropick, troubled with black Melancholy, fickly, or have been formerly maltraited by the Pox: But this is not observ'd in Persons of a robust Constitution, and of solid built Parts, nor vet in those who have been miserably fatigu'd with tedious Diseases.

requires it, end that it is belonged and arrived by the control of the control of

rve observ'd, that those who are severely wounded in the Head, and seiz'd with a Vomiting, an Abolition of the Senses, and other grievous Symptoms of disorder'd Brains, are some of 'emseiz'd with violent Convulsions soon after the Application of Blistering-Plaisters; some are seiz'd a sew Hours or Days after with cold Sweats, which are follow'd by Death: Others die of Convulsions

the next night. I remember to have feen one that was violently ill of fpasmodick Gripes and Throws in the Belly, with a Fever, and after the application of Bliftering-Plaisters in the Hospiral voided by Stool a great quantity of reddish Blood, and died foon after. Having thus observed again and again, that fatal Convulsions or the above-mention'd Disorders were the consequence of bliftering Plaisters applied for grievous Wounds in the Head; I freely foretold upon all fuch Occasions what would come to pass, and the Event always verify'd the Prediction. Where-ever you suspect or fee Convulsions, abstain altogether from Blistering Plaisters; especially if they be accompany'd with a Fever, a sharp and colliquative Constitution of the Blood, with a thin Habit of Body, or fucceed to previous Watchings, to a spare Diet, or Venereal Evacuations. Such as have been pox'd before, are very much injur'd by Bliffering-Plaisters, let the Disease be what it will; So that to fuch Patients we ought not to apply 'em, unless it be in great Coagulations of the Blood, and fleepy Diseases, and even then with caution, In ardent and continual Fevers, accompany'd with a great Agitation and Impetuolity in the Blood; in a hot and dry Season, in hot and dry Countries, in hot and dry Constitutions, or such as pursue a hot and dry Diet, or are in the Prime of their Youth ; in nervous Disorders attended with a Fever that leans to the ardent kind; in the fleepy Symptoms of fuch Fevers as approach to the ardent kind; in the spalmodick and inflammatory Diforders of the Breaft, and fuch as proceed from the faline sharp Constitution of the Blood : In all fuch Cases, I fay, I have oftentimes observ'd that Bliffering. Plaisters are noxious, And the fometimes there is a lucid Appearance of Benefit in fuch Cales, yet being doubtful whether that proceeded from the Blifters,

Blisters, or from the other Remedies, I therefore seldom or never did prescribe Blistering-Plaisters in these Cases; for I as a happily to compass the Cure with Hypnotick. Diluting and Dulcifying Medicines.

Having occation above to mention fleepy Dif orders; I must here take notice by the Bye, that in the most ardent Fevers, and those which proceed as were from an Inflammation of the Blood I have leveral times observed in the beginning of the Invasion a fort of Sleepiness, that increas d as the Difease advanc'd, and was exasperated by a copious Prescription of dissolving and Gephalick Medicines. Repeated Observation has likewise taught me, that this sleepy Symptom abates of its own accord, when the Difease tends to a Declen-tion; or if it does not move of its own accord, is eafily dispell'd with the Emulsions of Seeds, Waters qualify d with juice of Lemons, and fuch like refrigerating Things. This Observation I say is only laid for such Fevers as are extream ardent and proceed from an overbearing Impetuolity in the Blood. Now, the Mechanicks will furnish us with a Reason why the Blood repairing to the Braun with so much Force and Rapidity, occasions a Difficulty both in the Filtration of the Blood and the Secretion of the Spirits; nay the Circulation of the Spirits being thereby intercepted, their descent, to the lower Parts is cramp'd and oppos'd; and by confequence, the greater Force you add to the Blood, the more you increase the Sleepinels, ande contra. the fratmodick and indammatory

prealt, and fuch as proceed from the falling there Constitution of the Blood: In all such Caffe, I

I have fometimes feen the Application of Bliftening Plaisters followed by a fort of subfultory and convultive Motion in the Tendons, a breaking forth

forth of Sweat, and that very copiously in some Cases, a flow Pulse, &c., and those Symptoms continue as long as the sharp Salts of the Cantheir Expulsion, as well as the above-mentioned Thirst, and dryness of the Tongue; especially if the Blistering Plaisters were prescribed upon due Indications for if they are apply'd unleafonably, they are fo far from difappearing that they affirme fresh Fury. Blistering Plaisters cause frequently, not only a Gangrene, but likewife a pilling of Blood, a heat of Urine, and the other Diforders of the Bladder, especially in a thin meagre habit of Body, in a hot and dry Constitution, in the heat of the Dog-Days, and the like. The pilling of Bleed, after the application of Bliffering-Plaisters has been frequently observ'd by the learned Trulling, and Manfredus Professor at Rome. But see upon this Head the Learned Simbaldus, Professor at Rome. Bliftering-Plaisters should be cautiously us'd upon thin meagre Bodies; for in fugh Cafes they readily occa-Sion convultive Motions, and inflame the Fever, and Sometimes, when the Fever tends to the Status or Heighth, the Application of Bliftering Plaisters will make it renew its Force and inflame the Symptoms. If to fuch a Habit of Body you join a hot and dry Constitution, the Summer Season, a previous and plentiful Evacuation, and fuch a State of the Blood as tends to Diffolution and Colliquation, you must avoid Blisters altogether, and that in all Diseases and all Ages, by Reason of the difinal Symptoms that follow the Application. Many of the Galenists, who stick too close to their Hypotheses, are of the Opinion, That the grievous and disproportion'd Symptoms of Colliquative Fevers or fuch as proceed from Diffolution, erife from the venomous Quality of the Fever and accordingly prefcribe four, fix, or mo Cc 2 Belly.

stering-Plaisters, in order to fetch out the Venom. But I have always observ'd, That the Application of Bliftering-Plaisters, in such Cases, is follow'd by Convulsions, Imposthumes in the Viscera, a greater Delirium, a considerable Increase of the Fever, and at last by Death it self; by reason of the Mass of Blood, its being more and more dif-folv'd by the caustick Salt of the Cantharides, and the sharp Matter of the Fever. Those who are delirious with an acute Fever, and a parched Tongue, die quickly upon the Application of Bliftering-Plaisters; and most of them are seiz'd with Convulsions before they die. These repeated Observations made in Hospitals scard me so much, that in this last Case I always confided (and that without Disappointment) in diluting Remedies, refrigerating Emulsions, and Bleeding in the Vein of the Forehead. Sometimes Blistering-Plaisters inflame a Delirium, or hasten the Arrival of an imminent Delirium, by Virtue of the great Pain they occasion. I have been told by a creditable Physician, That a Piece of Bread taken just out of the Oven, apply'd very hot to any part of the Body, will raise Blifters in half an Hour, and make Ulcers like a Bliftering-Plaister; and that if this Ulcer and Crust be not well taken Care of at first. twill be a hard Matter to cure it afterwards. The excessive Use of Cantharides raises a filthy Satyrials: two fatal Instances of which are recorded by Ca-brolins, Obf. Anat. 17. And for that Reason I would also advise Physicians to apply Blisters cautiously to falacious Persons.

IV.

I have feen more delirious Persons dye upon the ple of Blistering-Plaisters, than ever I saw recover.

Oftentimes the Application of Blisters stops a keele Belly,

Belly, and turns a high Pulse to a low one. The Acid of Vinegar corrects and fixes the volatile Caustick Salt of the Cambarides; and therefore If you want to have ftrong Bliftering Plaisters, add a little Vinegar or stale Yest, or instead of these, the Plaister de Mucilaginibus, or the like. There's nothing that makes the Ulcers of Blifters fo ready to gangreen, as the putting too much Cantharides in 'em; for the Cambarides being very light, insomuch that 50 of them will scarce weigh a Dram. mistakes may readily happen in prescribing their Dose; and for that Reason they ought always to be prescrib'd by Number, as Six or Ten, &c. and not by Weight. The Cantharides taken inwardly either against a desperate Suppression of Urine, or against a virulent Clap, or in order to excite Vehery, are wont to produce difmal Symptoms. Soon after they are taken, the Bladder and urinary Passage is ulcerated, then the Liver is gradually inflam'd, the Intestines are corroded, and the Hypogastrium is infested with violent Pains, which are follow'd by a Delirium and Death, without the Cantharides be immediately expell'd, weakened or clog'd : See upon this Head Francis Joel, who lays down a prudent Scheme of Cure. According to Langius, Epift. 7. Lib. 1. the Antidote for Cantharides, is Milk, whether native or artificial. I've observ'd that Blistering-Plaisters are useless. and even hurtful, in Men of an adust bilious Constitution; for besides that the blister'd Part is violently inflam'd, and flea'd, with a prodigious Pain, and a final Evacuation of Serum, and fometimes none at all, the Bladder is feiz'd with a most violent Strangury: So that considering the Blood of fuch Constitutions is plentifully stock'd with Salt and Sulphur, and diluted with little Serum, 'tis necessary to back the Use of Bliftering-Plaisters with large Quantities of diluting Me Cc 3 dicines. . Of the West and Abuse

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dicines, in order to prevent the Diforders mentioned but mew. And thus of have briefly man through the Inconveniences according from the Application for Bliffering Plaisters, what fell under any Observation in the Hospitals. I proceed; the the next filace to the Advantages that accompany them of craftill to craft the parties of spirits of company

miliakes may readily happen, in preferibing their D ie; and for Alle Reland He ought always to

in em : for the Carbariles being very light, in-

Of the Advantages redounding from the use

sgainst a virulent Clap, or in order to excite Ve-

Soon after they are taken, the Bladder and minary THOU the Diforders mention din the laft Chapter are the Product of Bliffering-Plaifare, yet these ought not to be barish de the Republick of Physick for good and all , for they are he all other Remedies to Wine, we fee; intoxicates and diforders the Head very much, and yet the Governors of Societies de not prohibit it because those difinal Effects are owing not to the poyfonous Quality of the Wine, but to the Indiforetion of Mankind in like manner, as Bli-Stering Plaisters are noxious in a sharp and melting Conflictution of the Blood, fo they are beneficial in a groß and viscid Disposition of the Blood that tends to Coagulation and Stagnation. In Fevers accompany'd with a very low Pulle, a Coldnell in the extream Parts, Anxiety, a Propenfity to fleepy Diforders, and other Marks of Coagulation, tis incredible what Benefit is reap'd from Blifters, especially if you joyn to these Symptoms the Winter-Seafon, a moist Constitution or a Tendency

dency that Wayma fatt Habit of Body, and the like. For the harp Salt, of the Cambarides being, communicated to the Humours thus dispos'd to Coagulation, disjoins their Parts, and disposes them, for their primitive Fluidity to Ina word, we have oot fuch an effectual and quick Remedy, as Blir, flering Plaisters, for diffolying the commencing Coagulations and Stagnations of the Blood in any Difeafe, Age, Confinution, or Seafon of the Year whatfoeven And this has the greater Appearance of Truth, that it agrees exactly with the Sentiments of the Anabians, who first invented them For they never us'd em but to souze out of fleepy Disorders, and animate thase who were refrigerated by an Illness as it appears from Oribahust the first Arabian Author that writ of em a and they abstain'd from 'em almgather, when there was no Necestry of diffelling Sleep or Chillness: But the Phylicians of disceeding Ages have follow'd other Measures; being buoy'd up with a false Opinion, that Blisters draw, out the Venom of Malignant Fevers, they prefer b'd lem promit cuoufly against all Fevers whatsoever; to the great Detriment of their Patients; as I made it to appear in the last Chapter. In a Pleurisie, whether with, or without previous Bleeding, I've observed on the fifth, or seventh, or the other Days that lye between a great and ominous Difficulty of Breathing and of Expectoration, which was taken off to a Miracle, by applying two Bliftering Plaisters to the Legs of Ancles, A Nay, I'll go yet farther : If a Difficulty of Breathing and Spitting happens on any Day whatfoever after a Pleurille, prefently apply two Blifter Plaisters to the Legs, Hippocrates was of the lame Opinion, Lib. 2. Pragn. 67. In the inflammatory Diforders of the Lungs (fays he) all Swellings upon the Legs are a good Quen , nay, o better thing can't happen, especially if they appea noull

when the Spitting is alter'd. I folemnly protest, that very few died out of Hundreds that were treated after this Manner, by a very learned Physician in a famous Hospital : And this I observ'd chiefly at Rome, in the Winter of 1694, at which Time Epidemick Pleurisies were very brief, by reason of the rigid Cold occasion'd by such Plenty of Snow and Ice. For the sharp Salt of the Cantharides being introduc'd into the Mass of Blood, and so to the Lungs where the Stagnation was dreaded, it prefently diffolv'd the growing Congulation, and reftor'd the Humours to their former Circulation, it leffen'd the Difficulty of Breathing, and promoted the Egress of Spitting to the great Ease of the Patient. In the mean time, take notice. That the pleuris tick Persons who reap'd this Benefit were not purg'd in the Beginning, as some Practitioners would have em, but had feafonable Bleeding prescrib'd with nothing else but pectoral Decoctions and gentle alcaline diffolving Remedies, in the Progress of the Cure. I remark'd that if any Looleness accompany'd the Pleurisie, 'twas either check'd or quite Stopp'd by the Application of Blistering-Plaisters. to the great Benefit of the Patient. Sometimes the Application was follow'd by a copious Evacuation of Urine, which gave great Ease, as well as the former Effect. Infallible Experience, and Hippotrates, are Evidence that Loosenesses are for the most part fatal in a Pleurisie; in regard they suppress the Spitting, increase the Difficulty of Breathing, and, in a few days, either kill the Patient. or turn him into Chronical Diseases. Hence 'tis evident how far those are out, who, upon the Pretence of leffening the Cacochymy, or fome fuch trifling Story, exhibit Purgatives in the Beginning of a Pleurisie, to the great Detriment of the Patient. For fince Peripseumonia's and Pleurisies derive their Origin from the inflammatory Dispofition

fition of the Blood, that shocks the tender Membranes of the Lungs, we must endeavour, by all means, to procure a gentle Dissolution of this Instammation, by emptying the Vessels and exhibiting temperate Alcali's. If to the inslamed Blood you add the inflammatory Stings of Purgatives, especially while the Disease is yet crude, you'll not only excite such Motions of Nature as are downright contrary to your End, but, by exasperating the Inflammation, suppress the Spitting, and heighten the Difficulty of Breathing, till at last the Patient either dies or falls into a Confumption.

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bach Research on the control of the As Purgatives are very dangerous in Pleurifies and the Diseases of the Breast, so Diureticks are very useful. For in all Diseases of the Breast, we are taught by the infallible Direction both of Nature and Experience, always to direct our Course to the urinary Passages. Indeed, in the Diseases of the Head and Face, the same Direction teaches us to exhibit frequently gentle Purges, which are then very ferviceable, especially if accompany'd with Baths for the Feet. To this Purpole, Facotius fays in his Com. ad Coac. Hip. lib. 4. fol. 211 That the Belly is almost always costive in the Diseases of the Head. In speaking thus of the Diseases of the Head, I do not mean those produc'd by the Acrimony, Convulsion, and too great Shock of the Solids or Fluids; but those proceeding chiefly from the Groffnels, the Stagnation, and Ropynels of the Fluids, The chief Purge that gives Benefit in such Diseases, is the Powder of Cornachim. The principal Diureticks for the Diseases of the Breast are all the Preparations of Turpentine, prepar'd Anglice. Fernelius's Syrup of Marth-mallows; and the the Herbs that are commonly call'd Agenisat Confidering that Acids are unfriendly to the Breaf we jought in this Cafe to avoid Dinreticks prepare of Acids; as Hoffman upon Schroder has well ob-Bayld, Fol. 376. where he disproves the Use of the Ralfam of Sulphur in a Phthilick and the other Diforders of the Breaft; upon the Confideration that it abounds with an unctuous Acid, which rather increases than extirpates the Phthisick. Of which Couth; the experienc'd Valschimid is likewise a Witness. But to drop this Digression: The Application of Bliftering-Plaisters in the Case of Delirium's in Men, is nocive rather than useful; and is oftner follow'd by Death, than by Recovery. But, on the other hand, delirious Women receive fuch Benefit from Bliftering-Plaisters that they mitigate both the Symptoms and the Difeafe, and prove a main Infrument of Health. This I obferv'd at Rame, in the Beginning of the Year, 1694. in which Season Italy was cover'd, in an unusual Manner, with Ice and Snow, and a great many dy'd fuddenly; not to mention that feverish Ca. tarchs were then very rife as well as moist Coughs, with a stuffing up of the Lungs, Cholick Pains, Penipusumonia's; and Pleurifies, which feiz'd the Men more than the Women. When a Delirium is imminent, instead of applying a Blistering Planther, I use to open the Salvatella in the right or left Hand; and fometimes I apply fearify'd Cupping Classes to the Shoulder-Blades, adjusting the Quantity of Blood drawn, to the Age, Temperament, de of the Patient The Opening of this Vein oftentimes prevents an approaching Delixium, or checks it very much if it has taken place already; the Impulse of the inflam'd and sharp Blood upon the Head, being either diverted by the Revultion, or lessened by the Evacuation of these Out-lets. After Bleeding I preferibe large Onantities of Emulions

Emulfions made with the Water of Cardins Benes diffus or Wiolet-Water, for Barly-Water Some times I shift the Emulsions with diluting Decoctis ons of refrigerating Herbs, qualified with a convenient Quantity of thirre. mofrahe mitrous Preparations, I recommend the Antimorial Niere or Sal Prunell: Sometimes the Ulcers raised by Blifters are in Diforder, throt the Fault either of the morbifick Mattery or of an ille Halliteof Body in which Cafe they grow gradually dry, with a black. ifh or livid Colour, and threaten followhat like a Cangrene. In fuche Cafes amprefent Remedy is Hoiter of Roles, manointell upon them twice or thride a Day Doon the Inunction of the Honey the Patient will perceive an unearly pricking Pain, and a Sort of Effervelcence, which proves a good Sign | for after a Day or two, a Moisture will appear upon the Ulrers, the Purgation of the Ulcers will be promoteds and the black Gruff that formerly loover'd em with fall off, and foon after a reddish Flesh will grow upon 'emunacio est or vi

Iffects are not to be expedied from Bagnios, a deving Diet, fulorificient cocious, and the like;

which by exalting and tharpening, the pointed balt have feen the good Effects of this Honey of Roles not only in the Ulcers of Blifters, but in all other that tend to a corrupt and fordid flate. The Mby, 1694. I tended at Rome a woung Man that had an ulcerated venereal Bubo in his Groin, with on scute Fever, Thirst, Prostration of Strength, &c. The Ulcer was broad painful, inflaitmatory, and cover'd with a black Cruft. As foon as I was call'd I prescrib'd ten Ounces of clarified Goats Whey to be taken in the Mornings, and at Night, an Emulsion of the Seeds of Melons and Gourds made with Carduni Benedictus Water, and mix'd with two Scruples of Crabs-Eyes. Inftead of folil Hatables he eat, every fix Hours, Broth impregnated with Alcalic असेना असेना

calic Herbs, and the Yolk of an Egg added now and then. The Ulcer I order'd to be anointed twice or thrice a Day with Honey of Roses. This Method continued for ten Days, discuss'd the Fever with its concomitant Symptoms, and the Honey cleans'd the Ulcer very well; so that upon drinkking a flight Decoction of Sarfaparilla Guaiacum Wood, crude Antimony, &c. he recover'd perfectly. Here I must remark by the Bye, that a diluting Diet goes a great way in the Cure of Ulcers; particularly Decoctions of the alcaline, dulcifying, and balfamick Herbs, vulnerary Decoctions, and the like, prescrib'd in large Quantities. For by vertue of fuch copious diluting Prescriptions, the sharp Salt of the Ulcers reigning in the Mass of Blood, is dulcify'd and blunted; and being thus diluted with a copious Fluid is readily expell'd by fuch Paflages as Nature finds convenient. whether Stool, Urine, or Sweat; upon which the Blood thus dulcify'd and purify'd, contributes highly to the Cicatrifation of the Ulcer. Now these Effects are not to be expected from Bagnio's, a drying Diet, fudorifick Decoctions, and the like; which by exalting and sharpening the pointed Salt of the Ulcers, reduce the Patient to a desperate State of Health, especially if his Body is not cachectick, moift, pale, and of a loofe Confiftency; or if the Ulcers are not of that Nature. Indeed if they are, a customary Use of Drying Things may be of fome Use. In the Diseases of the Eyes and Face. Bliftering-Plaisters apply'd to the Neck are as good as Specificks, and preferable to any other Remedies; particularly in a Suffusion, and what is commonly call'd Rheums or Defluxions upon the Eves. This I have frequently beheld with Admiration. Sometimes the Ulcers of Blifters are hard to heal, even when the primary Disease is cur'd long before, and the Ulcers have made a fufficient

fufficient Evacuation of the morbifick Matter; nay, they continue open and running for many Months, in spite of all Remedies. In this Case, I have not met with a better Remedy than Frankincense powder'd very fine, and sprinkl'd upon the Ulcer twice a Day. I have likewise found the Cicatrization promoted by Lint or toaz'd Threads, boil'd in the Decoction of crude Allom, and then dry'd and laid upon the Ulcer. But sometimes, when the Body is very soul, I have sound even these do but little Service.

tion, in brailing to repet of the party of the

Blistering-Plaisters, Sinapismus's or inflaming Applications, Purgatives, and fuch like stimulating Things, are not to be us'd in juicy and plethorick Bodies, and fuch as are over-cram'd with Humours, unless the Vessels be first clear'd, either by Bleedings, if the Indications require it, or by 2 fevere Diet : For while the Humours are crouded. or move rapidly in the Blood Vessels, the Secretion of the Fluids in the Sieves of the Viscera and other Parts, is perform'd either with Difficulty, or in a Morbifick Way: For, by the Rules of the Mechanicks, a due Secretion requires not only clear Pores and a proportion'd Refiftance of the Solids, but likewife a proportional Motion and Quantity of the Fluid that is to be strain'd out and if either of these Conditions be wanting, the Secretion will be carry'd on in a preternatural Way; as I intimated before in recommending Emulsions and refrigerating Remedies against a fleepy Disorder in the Beginning and Increase of ardent Fevers. The Stimuli, or pungent Particles of Purgatives, Bliftering-Medicines, and Diaphoreticks, raise in the Fluids a greater Fermentation. Turgescency, and Rapidity, and in the Solids a fort

of linely Mibration to 6 that if the Humon's too plentiful in the Veffels, or be rais dby wiolent Fermentations to the highest Degree of Turgelcency, by which Means they out do the Refutance of the Solids, and variously pull, extend, and twift the Fibres of the Viscena I I this happens. I fay, itis no Wonder if foon lafter we meet with Ruptures of the Velfels, and dangerous Fixations of the Fluids , a thing that daily Experience makes out fufficiently. For after an indifferent and unfeafonable Use of Purgatives, Bliftering Plaisters, Diaphoreticks, &c. there's nothing more frequent than an Exasperation of the Fever, Delirium's, Inflammations of the Viscera, convulsive Motions, Spontaneous Bleedings, and the like; which, after all, would not happen, if such Remedies were not prescrib'd till after the clearing of the Blood-Veflels by the Means of Bleeding, for after the Humours are difengag'd and circulate in more Room. tis impossible, then for any Fermentation or Turgescency, excited by such Medicines, to shock the folid Parts, or make way for the Coagulation and Stagnation of the Fluids, Twas for thefe Renfons, perhaps, that Dr. Sydenbam, whom Irply admires fo much, recommended fo earneftly the whering in all Purgatives, especially those of the Gronger Form, by emptying the Vessels with Bleeding or Diet, if the Disease gives time. This Author has likewise established upon repeated Obfervation, a Method of managing the febrile Fermentation of the Blood, as well as fome other Authors of this Age. He was the first of the Nonthern Authors that reduced the Suppery Method of the otherwise learned Northern Physicians, to the right Path of Reafon and Experience , and, among other Things, affirm'd, That fuch as exhibit Pur gatives in the Beginning of scute; Difeales, see equally guilty with those who give Diaphoreticus 3701

in the same Case; upon the Consideration, that the sebrile Fermentation of the peccant Matter being then crude, confused, and unqualifyed for Depuration, is yet more disturbed and frested by the additional Stimuli of Purgatives, Diaphoreticks, Escand instead of a due Depuration, produces an Exacerbation or Reduplication of the sever, Watchings, Deliriums, Inslammations of the Viscers, convultive Motions, and a thousand such Things. But of this more at large in our foregoing Books of Practice.

hind the Pars, or upon the Shoulder-blates i for the ferous Impurity ouring Nom the Body of the Blood

From what I have premisd, itis manifest that Bliftering Remedies enjoy a notable Vertue of diffolving and attenuating groß, coagulated, and ftarnating Blood; and are Specificks in a manner in Suffusions, in Disorders of the Eyes arising from Flux of Humours, in Fevers proceeding from Coagulation, and fuch other ropy Diforders of the Humours. Now confidering that stubborn Obstructions of the Viscera, Cachexies, and Chronical Suppreflions of the Terms, are owing to that fort of Blood. I would therefore exhort Physicians, in such desperate Cases, to try Cantharides either in Plaisters or any other more convenient Way, that the Cure of fuch difficult Diseases may be set in a more clear light. Thomas Bartholinia, Cent., 5. Obf. 28. thews the Way of making an Infusion of Cartharides, which he cries up as a Specifick for Curing a virulent Clap and suppression of Urine, and expelling the Stone. The Preparation is as follows: Infuse a Scruple of the Powder of Cantharides in three or four Ounces of Rhenish Wine, or Spirit of Wine: After they have been infus'd for fome Days, filtrate the Liquor through brown Paper, to that none of the Substance of the Cantharides may go through. WILL

Spoonful of the strain'd Liquor with seven Spoonfuls of Wine or Ale, and take off this Mixture, one Spoonful the first Morning, two the next, and so on. Now, whether this Remedy is to be given in the Obstructions, and the Diseases mentioned but now, is what I have not yet put to the Trial. Those who are subject to a grievous Cough, with gross and copious Spittings, do not meet with fo much Relief from any Remedy, as from a Blifter applied to the Neck, and if the Ulcer of this Blifter shou'd happen to heal fuddenly, another may be apply'd behind the Ears, or upon the Shoulder-blades; for the ferous Impurity ouzing from the Body of the Blood is diverted by the Blifter from making that Impulse upon the Lungs that occasion'd the Cough. This I observed in the Hospital, upon the Pre-Scription of an old Physician: And Dr. Willis experienc'd it in his own Case. Having thus dispatch'd a brief and faithful Account of the Use of Bliftering Remedies, the next Chapter shall be employ'd in giving a mechanical Account of the Manner in which they operate,

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The Nature of Blistering Medicines is evidently demonstrated from the Mechanick Dodrine of the Stimuli.

SECT. I.

B Liftering Remedies operate by Stimulating, and make the principal and most considerable Figure among what we call Stimuli: For a clear Understanding of which, I shall here present you with

of Bliftering-Plaifters.

with some short Hints, in imitation of Bellini in

his learned Freatise de Stimulis ment a rivuol viv

My first Position is this: A Stimulus ought to produce a greater Effort in the Motions of the Parts, of which the whole Membraneous System is composed, as also an Expression of any liquid Box

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Operation of a Stimulus, the Hairs or Fibres of the Membranes, that is, of the whole Body, ought to be contracted with more Force than they naturally are; and by this Means, the Expression of the Liquids will be compassed more easily: For this greater Contraction will make the Hairs on the Threads shorter and harder; and withal stiffer and more bent, so that their Trembling or Visionation will be more lively, and the Excursion of the Fluids, being within the Contact of the said Fibre, will have a greater storce in the Diameter, and both the Efforts being increased, the Expression of the Liquor will be facilitated as well as its Derivation to what Place it can best come at the said vation to what Place it can best come at the said vation to what Place it can best come at the said vation to what Place it can best come at the said vation to what Place it can best come at the said vation to what Place it can best come at the said vation to what Place it can best come at the said vation to what Place it can best come at the said vation to what Place it can best come at the said vation to what Place it can be said the said vation to what Place it can be said the said vation to what Place it can be said the said vation to what Place it can be said to said the said vation to what Place it can be said to said the said vation to what Place it can be said to said the said vation to what Place it can be said to said the said vation to what Place it can be said to said the said vation to what Place it can be said to said the said vation to what Place it can be said to said the said vation to what Place it can be said to said the said vation to said vation

My third Affertion is this and Stimulus ought to add more Strength to the Contraction of the Mulcles, occasion'd by the Liquids or Juices that runwithin 'em; by which not only the Expression of the Liquors will be facilitated, but the Swiftness and Circulation of the Blood will be heighten'd. For since the Force of a Stimulus raises the peral yous Liquid to more frequent Undulations for by vertue of the Motion of Derivation, a more than natural Quantity of this Juice will be convey d into the Nerves of all the Muscles by which Means the Muscles will suffer a stronger Contral ction, and make frong Effortsoutwards with those Hairs or Threads, and lo fqueeze out all the more Liquid Parts that lye within the reach of their Contact; that is, that lye round them and within

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the Space in which they are successively mov'd

while they fuffer Contraction.

My fourth Affertion is this: According to the Diversity of the Part in which the Stimulus operates, it may either be redden'd without a Swelling, or really inflam'd, or neither fwell'd nor redden'd, or it may swell with some other Tumour, and even evacuate a great deal of Matter that the Stimulus does not call to that Part.

I fay, in the fifth Place; That the same Things would happen, if to the Stimulus were joyn'd a certain Faculty of piercing inwards, and preparing the Humours; but some Evils may likewise ensure thereupon, and those of a quite different Nature

from the Stimulus alone.

For a fixth Position: If a Stimulus does not only bend but pull asunder, and be either sample or joyn'd with a Ferment, 'twill produce the same

Effects as above.

The Seventh Conclusion is as follows. Such is the Operation of an Evacuating and a simple or Unfermenting Stimulus, whether the Evacuation be made from the very Part that's ftimulated, or by the natural Emunctories, namely the Nole, Mouth, Fundament, &c. Such I fay, is its Operation that it may Evacuate not only what it expreffes from the circulating Humours, but likewife the Matter squeez'd out of the Substance of the Threads or Fibres of the folid Parts: And the fame will be the Effect of the Stimuli accompanied with a Ferment, foch as Blistering-Plaisters, Singpilmus, &c. For these and indeed all stimulating Things provoke every Hair or Fibre of the folid Parts to a valid Contraction, and to an Expression of all that's in a fluid State. Now the Fluid thus express'd will move off where it finds a Passage. Whatever is squeez'd out of any Vessels will undergo a derivation out of them, and be convey'd

between the Meribranes, both upon their Surfaces, and in the Interfaces of their Pores. But that which ouzes from the Fibres of the folid Parts, may be conducted within the Veliels. Upon the whole we conclude that the Evacuating Stimuli, the tin-provided with a Ferment, may draw out both the Liquid express defrom the Fituniours, and that fonces do not of the Substance of the Fibres, either by the natural Emunciones, or by such Events at the made in the Stimulated Parts.

Eighthly The unevacuating Stimuli move with a great Force, and are able to make a mighty Difficultion. The Evacuating Stimuli not joyn'd by a Ferment are capable of the fame Effect, and besides impair the quantity of the Liquids. Nay both the one and the other must needs dry very thich. The evacuating Stimuli accompanied with a Ferment may produce the same Effect; but according to the Diversity of the Ferment to which they are tacked, they may either condensate, mielt down to agulaten fix, or in fine do whatever you have a mind to the life.

A Stimulus makes a very notable Contraction, and the Contraction makes a very great Exprellion of Fluids, even in the remotest Parts ; fo that Stimulus makes a very great Impression both upon the fluid and folid Parts. This argues the necessity of Stimulating Medicines in fuch Difeafes as proceed from a Coagulation and Ropynels of the Hus mours, accompanied with a Paralytick Disposition or Lauty of the Pieres of notwithstanding the false prepossession of the Vailgar to the constary. Further The Contraction of the Blood Vellela being thus thereas'd. Bryoll after the Contact of the Ropy Liquid that Ragnates within lent ; and the Velocity of the whole Mais of Blood being likewife increased, the Mass will thereby have a greater Force to fiveen it along the Canals, and Dd 4 convey

convey it to the Viscera, in which it may be fur-

The Niuth Position. If the Parts of the Liquid that besides the Membranes of our Body, did all Press one upon another, and make a mutual Pressure every way, as the Particles of the Blood do within the Vessels; by vertue of this Pressure, the Matter even of the most distant Parts might be drawn by Derivation; and voided by the Emunctories of the Stimuli. But such a mutual Effort in these Liquids does not stand to Reafon.

In like manner, if the Skin and all the Membranes of our Body were naturally so bent and diffended, as to contract all round upon the ftimulating or pulling of any one Part, and that in fuch a manner as to make the Effort tend to the Place of Divulsion, and drive all Liquids towards it, as the Bladder does in preffing forth the Urine ! If this were the State of the Membranes, their Contraction might convey to the Emunctory of the Stimulus, and evacuate by that Passage the Matter even of the remotest Parts: But such a natural Tension in all the Membranes, fuch an Univerfal Contraction, and pointing of the Impulse towards the Stimulus, do not feem to be reasonable. But at the same time the Matter lodg'd in any Part may be mov'd by a distant Stimulus, if the Stimulus be plac'd upon a Nerve or any bent Membrane, that reaches to, and is woven in with that Part, and it may be Evacuated by the Emunctory of the Stimulus, if itis either within the Nerve or can be convey'd thro' the Fibres of the Mem brane con if it be for reducid to that State of Flui idity by the Influence of the Stimulus, las to flow the Emphictories, Above all, the most certain way by which the Stoub act upon the most dis flant Parts, is that not Jogging, Stimulating, and fearching: COTTACA

405

fearching the whole Body, and lessening the whole Quantity. But you may read more of this Matter in Bellini, de Folicule Contractili. Since therefore the Stimulus, by virtue of its Contraction on, makes a Conculion not only of one particular Part, but of the whole Body, and Iqueezes it all over, upon which the express d Liquid flows, where ever it meets with a Passage, into the Blood-Veffels, and all round, and forme of it is evacuated by the Emunctories : Now the Quantity of the whole being thus impair'd by this Evacuation. questionless the affected Part, tho lying at a Di-france, will be visited by a lesser Crowd of that in fuch Difeates as are faid to proceed from Der fluxions, namely fome Catarrhs, luffocating Coughs. and those occasion'd by ropy rough Matter the Diseases of the Eyes, particularly Suffusions, some periodical Pains &c. in all Difeales retaining to the Stagnation and stubborn Fixation of the Humours fuch as Apoplexies, Palfies, Jeepy Diforders, Obstituctions, &c. In these, I say, and the like Diftempers, the main Stress of the Cure will, for the Reasons above-mention d. Ive upon the timulating. Effects of Bliftering-Plaisters, or some such singuis lating Med cine; and it must needs be a very cri-Cales, in Compliance with Speculation or received.

My Tenth Affertion runs thus. When we apprehend any danger of an overbearing Affinr of Humonrs to a filmulated Part, our fafelt way is to apply the stimulus at a distance from the Part that we mean to evacuate. But if no such Danger be fear'd, we may apply it just by the Part. Many Stimuli are better than a few, when its proper to excite lively Motions and brisk Vibrations or Officilations in the Fibres; and in this Case, the Stimuli

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ought not to be confin'd to a parrow Space. When the Pain and Sense of the Stimulation ceases, was Wounds it gave. If we delire a sudden and evi-dent Benefit from Himulating Med cives, we must make em numerous, large, and sharp, and whatupon enfue in the Body must be initigated with moistening and cooling Things, taken in large Quantities, which will likewise serve to appeale the provok a Spirits. Accordingly we find it attelled by feveral Histories, that difinal heepy Diforders, Apoplexies, and the like, have been took off almost in a Minute of Time, by applying a being first shaw d off. But when the Stimulation is to be continued for a long Time, we make em leffer and fewer, for the Reasons above mention'd. From all which, we make this Interence, That stiimplating Med'cines make a great Agitation and Confumption of the Spirits; as twill appear more plainly from what follows

The Eleventh and last Position is this; Tho stimulating Med cines may supply the Room of Bleeding, and operate as expeditionly, especially if they are very sharp, yet they are not so safe as bleeding. But at the same Time, I must own, they have something peculiar in em that is not obtain'd by Bleeding, for they move, contract, and shake the whole Body, and at once excite and

joftle both the fluid and the folid Parts.

From all these Propositions, we might deduce an Infinity of practical Corollaries, to let the Benefit and Injuries of stimulating Medicines in a clear Light; But considering that the learned Bellini has purfu'd that Subject with so much Soliding, and given an evident Reason for every Propo-

of Bliftering-Plaifters.

fition, I shall content my felf with a few Hints relating to the Cure of Diseases.

ch Inconveniences by maillening and

Some Stimuli are fingle, or fimple, and fome are accompany'd with a Ferment. The former are fuch as impart none of their Substance to the Humours within, when they tear, redden, and pain the Part's fuch are fearing with a hot Iron, Friefions, Cupping-Glaffes, whether fimple or fcarrify'd, and the like. Those accompany'd with a Ferment, are such as communicate something to the Humouts; as Bliftering-Plaisters, Sinopi mus's Dropax's, and the like ; the tharp Particles of which do at once twitch the Part, and join the Blood, and forcibly diffolve, open, and jumble its Mass. Both these Stimuli make a violent Agitation of the Solids, as well as the Liquids; (only the fermenting Sort make the greatest ;) and the Solids thus tofs'd, make a more forcible Impression upon the Liquids, which being thus press'd, come with a greater Shock upon the Solids; and fo there enfues a mutual Pressure and Rebound, which makes leveral Parts of the Liquids, between two neighbouring Parts, or upon the outer Surface of two that are not contiguous, to bend their Impulle inwards by which means, the Coherence and Mixture of their Parts, is either funk or establish'd. The same must be the Influence of Solids upon their own Parts, of Liquids upon Solids, and of Solids upon Liquids , that being the Confequence of their mutual Action and Reaction. "Tis therefore a flanding Truth, as I have oftentimes infinuated, that the folid Parts are much thak'd and diffolv'd by the Stimulus; and that the fame Stimulus affects the Liquids with an Agitation, Diffolution.

lution, Mutation of Contact, and a violent Expression and Derivation, where ever a Passage is found. In regard these Actions consume a great deal of Moisture, and weaken the Spirits, we ought to prevent such Inconveniences by moistening and corroborating Prescriptions; for, otherwise, the stimulating Med cines will fall short of their de-

The Mechanicks are Evidence, that Bliffering Plaisters are the principal Stimuli, and have a just Claim to all the Effects now mention'd : And therefore tis credible, that fome Difeates can scarce be cur'd without Blisters, and that others will he exasperated by the unseasonable Use of the tame. They are not prescrib'd so much for lessening the Quantity of the Humours, and drawing out the Malignity, (as some fancy) as for dissolving and moving the coagulated groß, and flagnating Humours, and drawing them from the Part affected to the Emunctory of the Stimulus, For what they evacuate is inconfiderable, and infufficient to lessen the Quantity of the peccant Matter, Perhaps fornebody may frait the Question, Whence the Humours come, that are thus evacuated by a Bliftering-Plaister? I answer, they are thrown out partly from the Pores and Glandules of the Skin, and partly from the Ends of the Arteries and the Extremities of the nervous Fibres; and, after the Action and Vibration of the Stimplus, from the whole Body and all the remoest Parts, as I shew'd above : For the Serum, impregnated with the frimulating Particles of the ded cine, is leparated very quickly, and pull'd alunder (as 'twere) in great Plenty from the rest of the Mais of Blood; and at every Turn of the Girculation, a great Quantity of it is thrown out by the continually irritated Ends of the Arteries neinul upon

upon which Occasion, the other morbifick Particles are separated and evacuated along with it. And farther the Extremities of the Nerves being laid bare, and irritated by the Application of a Blistering Plaister, 'tis probable somewhat is likewife thrown from the Nerves upon the frimulated Part ; for the whole nervous Liquor being put into a Commotion by the Stimulus, is cur'd of Stagnation; and at the same Time, the heterogeneous Particles mix'd with it being tofs'd on all Hands. and drawn by Derivation from the Brain, flide gradually towards the new-open'd Emunctory, and fo are thrown out.

From what has been faid, we conclude, That the principal Difeales in which Bliftering Plainers are more proper than in other Differences are, malignant Fevers arifing from the Coagulation and Viscidity of the Humours, sleepy Diforders, Catarrhs retaining to a viscid Matter, and threatning an Irruption upon the Lungs, or any other noble Part, or upon the Noftrils, Eyes, Throat, Breatt, &c.; fix'd and tearing Pains in any Part; fome cutaneous Difeales and ernatick Pains, Convillion without Fevers Epileplies and fuch other Dif orders of the Nerves; and, in a word, all Cafes in which tis proper to diffelve, twitch, move of by Derivation, excite, or the like, with due Regard to the Genius of the Disease, and the Dictate of Experience the fraction of the Link ods bus

different from what they were hefore, and fonteenes are hid from our Fiew . Whereas the Esterimonts we make upon traing Animals by way of Infuhan, afford a clear and unfeigned Representation of the Effects that proceed from thence. To speak ingentions, all the Defendered made by Anatomills in thele Lags, either day, Che more Northern Countries, are opineto the Depotition of live Arthoris. Open this Confiderations I fland amon'd that this Age applies them Weet upoth which Coalion, the other morbis de Particles area separated and evacuated along with its last safe, and irritated by the application of a Bistering Plassee, in probable former that is like-

DISSERTATION III.

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to a Commotion by the brimulus, is cur'd of Stag-

Anatomical and Practical

OBSERVATIONS.

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Point what has been fail, we conclude, That

The PREFACE to the Reader.

had and tearing Pains in any Part : fome F all the Enquiries and laborious Adventures of Anatomists, I recken none more useful for the aftrating of the Ætiology of Difeafes, and the Stru-Hure of an animated Body, than the Infusion of Liquoes into the Verus or Viscera of live Animals; the Death of which does so alter the System both of the solid and the fluid Parts, that sometimes they appear quite different from what they were before, and sometimes are bid from our View : Whereas the Experiments we make upon living Animals by way of Infusion, afford a clear and unfeigned Representation of the Effects that proceed from thence. To speak ingenuously, all the Discoveries made by Anatomists in these Days, either in Italy, or the more Northern Countries, are owing to the Diffection of live Animals. Upon this Consideration, I fland amaz'd that this Age applies themselves so little to the Art of Infusion, by which they might bring to light so many unknown Things, relating both to the Nature of Diseases, and to the Constitution of an animate Body. Many learned Anatomists bave purfired it with Prodence and Discretion, and bave describ'd the Syringe, and other Instruments employ'd in the Performance; but even these fluck at the Threshold, and went no further. Having thefe Things fix'd in my View, I chose to enlarge this Book to a fuft Bulk, by subjoining these Four Experiments, that lay scatter'd and rough-drawn in my private Notes; and in the fame Time, to gratify the Anatomift, I have aided the History of the Diffection of Malpigha's Corps, which I perform dat Rome last Fear toud in regard I tende ed bim in his Illness. I have likewish put in a short His flory of his Distemper. I have likewise added some Rethe last Two Tears; not only in Rome, that all over deil ly, designing some Time bernaften to make a particular bur Differtation of that Sickness, and of the Differtibus of the Corps of fueb as dy'd of it. This is what I Colour and a recent Ortanic, minera other some stageout Blood in the Heart wine Blood in the Lungsware likewife clotted, but every Things ook small ingle 495 and in the control of the

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The Preface to the Few Den. Art.

A Collection of Experiments, made by the Art of Infusion upon Living.

Animals.

wed went no further: Having the Foregoing in in my View, I choose Tom Experiments, that low cover to the low covers that low covers

Naples, in the Month of July, and opening his jugular Vein in the Afternoon, I injected into it with a Syringe Half an Ounce of the Spirit of Vitriol. As foon as I had clos'd and fwath'd up the Wound, the Bog was feiz'd with a Shi veing and Shaking, he womited and threw out great Plenty of Spittle, he fell down upon the Ground, was breathless, and somewhat touch'd with Convultions; after a few Hours he dy'd. When I cut up his Carcase, I found all his Viscera of a blackish Colour, and a great Quantity of black and clotted Blood in the Heart; the Blood in the Lungs was likewise clotted, but every Thing besides was found.

A COROLLARY.

I meet with few Authors of this Age, that treat of the Art of Infusing of Liquors into the Blood or Vessels of a living Animal, or lay down the Method of going regularly about that Art, not withstanding that the Nature and Cure of Diseases might be mightily illustrated by it. If we take a narrow View of all the Accidents that happen to an Animal after this Insusion of Liquor, relating to any Functions of Life, or any of the Bowels

or Parts of the Body; by a just Parallel we may apprehend, that that Infusion prescribed to Patients, might produce the like Symptoms in human Body. Twould be a great Improvement of the Practice, if any Society or Body of Learned Men would pursue these Experiments of Infusion, by proceeding gradually to various Liquors, and establishing a Method in making their Experiments, and then digesting them into one Body; as the falmous Mangetus has done in Anatomical Matters, in that golden Book of his, entituled, Bibliotheca Anatomica. My Learned Friend, Lanzonus, Professor at Ferrara, is Evidence, that the same Method is necessary in practical Things.

the spittle In trial and Hoberts con a some Chile

Rome, Jan. 30. 1693. I view'd the right crural Vein of a young Dog, near the Groin, and infus'd with a Syringe two Ounces of rettriy'd Spitit of Wine. After the Injection, the Dog this ver'd and shook all over for Half a Quarter of an Hour, then he voided Urine in great Plenty, and was well as to all the Functions of Life. I car him up afterwards, and found all the shuid and follow Parts in a natural State.

flow Progression, T M S MAT S 19 A Ture a Cu-

Having ty'd a young Dog down upon a Table, I open'd his right jugalar, and infus'd two Conces of the rectify'd Spirit of Wine, but the Injection was scarce over, when the Dog expired in cutting up his Carcase, I found the Blood very much clotted and boagulated in the Lungs, but all the other Parts were found.

two Mileses more frequently and copiently than any grief, can't but firth its latal Trayedy, there excellences

A COROLLARY

The two last Experiments teach us, what different Effects the fame Medicines may have upon the Humours according as they are apply'd to this or that Part, internally on externally, &c. For confidering that the Blood returning from the whole Body, ruthes continually and in great Plenty into the Lunge; tis no wonder, That the Spirit of Wine thrown immediately by the lugular Vein into that great Ocean of Blood, coagulated it immediately, and occasion'd sudden Death; for Spirit of Wine thickens the White of an Egg very remarkably; and being held in the Mouth makes the Spittle as thick as Glew. Etmullerus Tom. 1. de Nur. & Aud. and Bobnius cap. de Somn. & Vigil, affirm. That Spirit of Wine produces the fame Effects in the Blood and Spirits. Now the fame Effect could not enfue upon the Injecting of Spirit of Wine into the Crural Vein, for there being birt a finall Inundation in that Part, which moves with a continued Velocity to the Heart, without any flich flay as is observed in the Lungs of the coagulating Vertue of the Spirit is eafily enervated and broken, before it arrives at a larger Channel where by vertue of the great Quantity, and the flow Progression, it might otherwise produce a Coagulation and fixation; and so its Vertue is quite fine upon repeated Circulation over him gains

This may furnish us with a Reason, why several Diseases after causing various Inconveniences in divers Parts of the Body, terminate at last in Disorders of the Lungs and Kidneys. The Reason is this; the Blood thus tained with Morbificht Particles, and being obliged in course to visit these two Viscora more frequently and copiously than any other, can't but finish its latal Tragedy, there

occasioning

occasioning Ulcers, Coagulations or Gangrenes, or affecting them many other Ways. For this Reason we ought always to take care of the Lungs and the Kidneys in the Diseases of long standing.

EXPERIMENT IV.

In the beginning of 1601. I laid open at Padue the Jugular Vein of a young Dog, and injected with a Syringe four Ounces of cold Water. After the Wound was done up, the Dog was feiz'd with an universal Shivering and Shaking, but he liv'd and did well.

EXPERIMENT V.

Padua, 1691, being affifted by the worthy Mr. Fardella, Professor at Padua, I took a large Dog, on Thursday, at four a Clock in the Asternoon, and making an Incision under the right Hypochondrium, put a strong Ligature upon the descending Trunk of the Arteria Magna, and the Vena Cava, and by chance we likewise tied the right Ureter. After the Wound was sew'd and bound up, the Dog vomited thrice, and then he fell down for dead; in which Condition he lay without the Accession of any other Symptom till next Friday, on which he dy'd about fix a Clock in the Morning.

Upon opening his Abdomen we found a fort of Swarhe or Streak of a yellowish green Colour, and two Fingers in Breadth, ran length-ways all slong the Intestines. His Diaphragm was somewhat instant down the Bile was all thrown out of the Gall-Bladder. Having laid open the right Kidney, we found a prodigious quantity of Serum floating all over the Substance of the Kidney. The Blood in

Observations, &c.

the Heart was extream black. All other Things were in a natural State,

EXPERIMENT VI.

Rome, Jan. 20. 1693. in an Hospital at Rome, I cut up the Corps of a Woman of 50 Years of Age, that dy'd of an Inflammation of the Colon, and found a Branch of an Artery running from the Trunk of the descending Arteria magna, that was inserted into the right Ureter about the Middle. But I was so hurry'd by the Servants of the Hospital, that I could not make any Observation whether this Artery was hollow, or rather harden'd into a Ligament, as the other frustraneous Parts are wont to be. Neither could I inform my self, whether this Woman had ever been troubled with a pissing of Blood, and the other Diseases of the Kidneys.

EXPERIMENT

At Bologna, I laid open the Throat of a little Dog (one of those call'd Corfetto di Bologna) and tracing the Carotid Arteries, separated from them the Nerves of the Par magum that descend on each side of the Neck, and cut these quite thro the Middle. The Amputation was no sooner perform'd than the Extremities of the Nerves were contracted towards the inner Parts of the Muscles. However, we sew'd and ty'd up the Wound. Presently the Dog became mute, and was ever afterwards uncapable either to bark or howl; but he was brisk and walk'd well, only he was seiz'd by intervals with a Difficulty of breathing. From thence to the Third and Fourth Day, he vomited up whatever he cat, and grew very sean: From the

the 4th to the 9th Day, he eat little or nothing, and look'd like a Skeleton. The 9th Day in the Morning; he howl'd and bark'd prodigiously, though he had been so long mute before. At last, being wasted by not eating, he died on the 12th Day.

Having cut up the Carcale, I found all the Viscera clear and sound; Only the Oesophagus or Gullet was stuff'd for its whole Length, with the Meat he had formerly eat, and so was very much swell'd, for the Meat had no passage into the Ventricle. Willis made the same Experiment upon a Dog, as he tells us, Tom. I. Cap. 24. De Nerv. Hist. & Usa. But he did not cut, but only ty'd the Nerves with a Thread, and so 'tis no wonder the Symptoms to be observ'd, are different from those now mention'd.

A COROLLARY.

All the World knows, that the Nerves which visit the Heart, are deriv'd from the Trunk of the Par vagum; and considering that in the foregoing Experiment, I cut quite through both the Trunks of the Par vagum, I wonder how this Animal could live, and the Heart retain its Pulsation for Ten Days, after the Intercourse of Spirits to the Heart was cut off. Willis afferts, that besides the branches of the Par vagum, some Twigs of the Intercostal Nerves visit the Heart, and supply their Room. But upon a narrow Scrutiny, in several Dogs, I could never descry em: and so I leave the Matter to better Heads.

EXPERIMENT VIII.

I joyn'd at Bologna with my learned Friend E e Guli-

Callelmini, Protestor in that Place, in Teparating nicely the Nerves of the Par vagum from the Carotid Arteries of another Dog, and tying them strongly with a doubled Thread. Some Authors tell you, that upon making this Experiment, the Dogs are presently seiz'd with an Apoplexy, but we observed no such Thing. Soon after the Wound was sew'd up, the Dog grew stupid, and could not stand upon his Legs, but reel'd from Side to Side. However he continued pretty well to the Fifth Day, only he cat or drank little or nothing. On the Seventh Day he died.

In diffecting the Carcase we found no extrava-

In diffecting the Carcase we found no extravafation of Serum, no swell'd Vessels, nor any marks of inflammation of the Brain. About the natural and vital Viscera, we met with great Fixations and Coagulations of the Blood. Every Thing else was in a natural State; which makes me apprehensive, that when Authors make this Experiment, they tye up along with the Nerves, the adjoyning Carotid Arteries, and that makes the Dogs Apoplectick.

EXPERIMENT EX

At Rome I cut a Spleen out of a Young Dog, and heal'd the Wound very carefully. The Dog did well, he eat and urin'd well, and feem'd to be in a perfect flate of Health, to the Fortieth Day, in which we kill'd him, and in cutting up his Carcafe, could discover nothing new.

EXPERIMENT

A large hunting Dog, Five Years Old, being accustom'd to swim frequently in Lakes and Rivers in quest of Fowl, fell into a desperate Cough,

Cough, and a Coryza, which caus'd a grievous Suffocation. He broke out twice a Year, that is, in April and November, in a filthy Scab or Mange After he had continued thus ill for Three Years, and was wasted to a Skeleton, we defign d him for an Anatomical Subject, and for that end fed him heartily before we Diffected him. About Five Hours after he had eat, we cut up the Abdomen and the Breaft. the Dog being still alive, and found all the Vifcera in these very well condition'd, and particularly the Lungs, where we thought to have met with the Cause of his Cough, Coryza, Leanness and other Symptoms; but we could meet with no Morbifick Thing, not in the Glandules of the Melentery, which we view'd very carefully. At the same Time we observ'd the lacteal Veins very numerous in the Mesentery near the finall Intestines; and near the lacteal Veins there run lymphatick Vessels, one of which I cut, and tafting the Lymph found it to be very tharp, and extream biting upon the Tongue. I have tasted such a saltish fort of Lymph, not only in this, but in other Animals. The Lacteal Veins, especially those of the larger Size, were knotted, and represented Branches of Knot-Grafs, the Knots I speak of were their Valves, and were frequent after the fame manner as these of the Lymphatick Veffels. I view'd likewife Pecquetus's Receptaculum, the Thoracick Duct, &c. Tis observable, that when the Steams which exhal'd from the Vifcera of the Dog, when just Diffected, reach'd the Flame of the Candle that we made use of in the Operation, the Flame crackled, as if the Powder of Bay-falt had been thrown upon it. In fine, there being no observable defect in the Viscera and Lungs, I Ee 2 was

was of the Opinion that the Coryza, Cough, danger of Suffocation, &c. were owing either to a carious Ulcer of the inner Parts of the Nose near the Sieve-like Bone, or to the great Acrimony and Saltness of the Humours that continually irritated and gall'd the above-mention'd Parts.

EXPERIMENT XL

Of the Circulation of the Blood in a Frog.

Open with a pair of Pincers, first the Belly of the Frog, and then the Breast; you'll prefently fee the Mesentery and Intestines start out in the Belly, and the turgid reddish Lungs in the Thorax. In the Coats of the Melentery, you'll observe some reddish Vessels scatter'd up and down, and these are the Veins and Arteries that nourish it. The Veins of Frogs are larger and thicker than the Arteries; but the latter beat, which the former do not. Both the one and the other are pellucid and transparent; and by the help of a Microscope you may gratify your Eyes with the pleasant View of the Motion and Ebullition of the Blood within their Cavity, of the polition of the constituent parts of the Blood. and a great many very curious Things. What Discoveries I've made of this Nature shall be now related.

Having cut up the Belly in the middle, take the Intestines along with the Mesentery while they are yet sticking to the Frog, and minding one of the red Vessels that runs along the Mesentery, put aside the Intestines gently with your Fingers, that the reddish Vein may appear the better. When the Vein is fully discovered, hold

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it against the light of the Sun, along with the Frog, and with a Microscope of one Glass in your Hand, view the Effects of the Blood contain'd in the Vessel.

By this Method I observ'd the following Particulars. The Blood makes a Progressive Motion in the Vessels with great Velocity; and moves as 'twere in so many straight Lines, like a lay of the finest and most swift Threads of Silk. These right Lines run with greater celerity in the middle of the Vessel than near the Sides; and the nearer they are to the Sides, the more their Velocity is impair'd. When the Frog is near to Death, these right Lines of Blood move with a flower Current, and instead of a Progresfive Motion, fly out fide-ways, and feem to jostle and confound one another. To make the Frog live longer, and fo prolong the Observation, you may only open the Belly, without touching the Breaft.

In the Veins about the Mesentery I observed a retrograde Course in the Blood; for the Blood that ought to have moved through any Vein upwards, steered its Course downwards, and sell into the next Trunk, which seems to run counter to the Rules of Circulation and of the venous Valves. To come at Certainty in this Matter, I slightly anointed the Surface of one of these Veins of the Mesentery with Oil of Vitriol; upon which the Flux of the Blood through that Vein was presently stopped, for it retired to the next Veins, and so to a greater Trunk, as if there had been no Valves to oppose a retrograde Motion.

When the Frog is at the point of Death, the Circulation of the Blood in the Vessels is retarded; but if it be seiz'd with Convulsions, or mov'd by pinching, presently the Circular Mo-

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tion is recall'd, and the Blood beginning to flowagain from the Parts to the Center, continues to do, while the Convulsions of Mutions of the Frog are continued; otherwise it ceases. When the Frog is just a dying, the Arteries begin to empty, and the Veins to swell. As soon as tis dead, the Arteries are quite empty, and the Veins swollen. The small quantity of Blood that remains in the Arteries feem'd to be compounded or confift of fo many fattish Globules, or very little Balls adhering to the Sides of the Artery, And these Globules of Fat appear more plentifully, if you take a Frog and kill it as foon as tis catch'd; for then tis well fed and the Vessels are more turgid. But if you keep it for fome Days without feeding it, you'll perceive but a very small quantity of 'em, when the Arteries are empty d by

If you take out the Heart of a Frog and lay it upon a Table, 'twill beat with a regular Syftole and Diastole for half an Hour after, and fometimes for a whole Hour, especially if it be expes'd to the Heat of the Sun. Nay, if you cut the Heart in Pieces, thefe very Pieces will shew you the regular Succession of Systole's and Diaftole's. If these reciprocal Motions grow weak and low, you may revive em presently with the prick of a Needle, or by breathing upon em, or

Though the Heart, and all the natural and vital Viscera are taken out, the Frog will still jump, and move its eyes, and shrink when 'tis prick'd; and that for an Hour after. Nay, I have seen it do all this, and even swim in Water for several Hours after the Heart was taken

The Motion of the Blocd, whether Inte-ffine or Circular, is not perceiv'd any where to diffinctly, as in a Frog, not only by rea-ton that the Blood-Veffels of this Amphibior Animal are Transparent, but likewife, because it lives longer under the Anatomical Knife, and is easier handled, and its Vifcera and Vellels are more conveniently put under a Microscope, by which means the Observation is prolong d and more time is allow'd for tracing the Truth; the Blood is observed to move further and further at every Pulsation of the Heart, and like one Wave pressing another, to be drove from the lesser to the greater Vessel, and from thence to the Vena Cana, and so to the Lungs. But we are not fo happy in viewing the Circulation of the Blood in the Veffels, that lead to the Head and Eyes above the Heart, as in the Vessels of the natural Viscera; for we do not descry so many Ramifications of the Vessels in the former, as we do in the latter; or if there are any, they are tore in Dissecting the Breast, or at least if they are not rent, they run such a winding Course thro' the Bony Parts of the Breast, Neck and Head of the Frog, that 'tis a hard Matter to set them before a Microscope. In order to an easy and convenient view of the course of the Blood in the Vesfels of the natural and vital Viscera, take care you do not tear the Belly too much with your Pincers, for if you do, you'll cut several Blood Vessels, and so the Circulation will be obferv'd, either with difficulty, or for a very fhort time. In making these Experiments, you must make use of a Microscope of one Glass, holding it in your Right Hand, and taking a Ee 4 nice

nice hold of the Frog with the Fingers of the Left Hand, so as to hold it against the Light. Tis observable, That a Frog lives without any Inconveniency in Mr. Boyle's Air-Pump, notwithstanding the Air is all pump'd out; but if you rub liquid Pitch upon the Back or Head of a Frog, it dies presently, as Barthelinus experienc'd several times, in Trast. de Palmon.

In a Frog, Tortoile, and other Amphibious Animals, we find but one Ventricle in the Heart, to which the Blood is convey'd by a Vein, and carry'd out by an Artery. In the egrels of this Artery from the Heart we meet with a Valve of the same Form with the Epiglottis, which savours the Egress, and opposes

the Retreat of the Blood.

Tho' a Frog will live and move for several Hours after the Heart is taken out, as I intimated above; yet it dies presently, and all Motion ceases upon the removal of the Brain and Head. Now the contrary is seen in the hotter Animals; a Pullet for Instance, the Heart of which beats for several Hours after the Head is taken off.

To the Kidneys of a Frog, on each fide, there adheres a great many oblong Bags, fill'd with an Oily Substance, which stick-close to the Trunk of the Vena Porta, near the Liver, and serve only as the Fat of the Kidneys,

and to supply the room of the Caul.

The History of the Sickness of Marcellus Malpighi, the Pope's Physician; with an Account of the Dissection of his Corps.

Having been intimately acquainted with Dr. Malpighi at Bologna, and waited upon him in his last Illness at Rome, I shall here oblige the learned World with a History of the Disease, and an Account of the Disease, and an Account of the Disease, of that excellent Anatomist.

Marcellus Malpighi was of a Constitution that tended to a Dryness, an indifferent Habit of Body, and a middling Stature: He had been subject for many Years to Vomitings, bilious Stools, Palpitations of the Heart, Stones in the Kidneys and Bladder, a piffing of Blood, and some light Touches of the Gout. his coming to Rome, all these Disorders were inflam'd; especially the Palpitation of the Heart, the Stone in the Kidneys, and the very sharp biting Night Sweats. Such was the Condition of Malpighi, July 25. 1694; at which Time he was feiz'd in the Sixty-fixth Year of his Age, about One a Clock in the After-noon, with an Apoplery, usher'd in with Care, Passions of the Mind, &c. The Apoplery was attended with a Palfy of the whole right Side, and a Distortion of the Mouth and right Eye. Presently we try'd several Remedies, particularly

ticularly Bleeding in the left Arm : If it had not been for the contrary Sentiments of the Physicians that confulted with me, I would have order'd the Blood to be drawn from the Paralytick Arm; upon the Confideration, That the defective Circulation of the Fluids in the Part affected, is not retriev'd by any speedier Method than that of opening a Vein in the fame, as it appears plainly from the mechanical Principles of Resistance and Motion. We prescrib'd at the same time scarrify'd Cupping-Glasses, to be applied to the Shoulder-Blades; the Powder of Cornachini, Sinapismus's to be apply'd to the Soles of the Feet; and feveral other Spiritous, Cephalick, and Specifick Remedies; by the Use of which, after flruggling 40 Days with a long Train of grie-vous Symptoms, particularly a Light-Headedness, a Capiplenium, and other Accidents, he got clear of the Apoplexy, and Palfy, and the above-mention'd Symptoms. But as Evils use to spread and gain Ground, so this samous Man sufferd much by the foregoing Disease in his Memory and Reafon, and melted into Tears upon the flightest Occasion. He was troubled by Intervals with Inappetency, a Want of Digeftion in the Ventricle, a fubfultory Motion of the Muscles, and flight Fits of a Giddiness. In fine, being worn out with these and other Symptoms, he was feiz'd, Nou. 29. with a fresh Fit of an Apoplexy, after the Injection of a customary Clyster in the Morning: This new Fit was uther'd in by a grievous Vertigo, with a Fit of the Stone in the Bladder for Eight Days, and an Exasperation of the above-mention'd Symptoms. But the Apoplectick Fit was more difinal than all the other Symptoms, for in spite of all Remedies whatsoever, he dy'd Four Hours after the Invasion,

The Diffection of the Corps

In Diffecting the Corps, I found the right Part of the Lungs somewhat flaggy and livid; especially the hinder Part, that adheres to the Back. The Heart was larger than ordinary, especially the Walls of the Left Ventricle, which were as thick as the Breadth of Two Fingers. The Gall in the Gall-Bladder was very black: The Left Kidney was in a natural State; but the Right was half as big again as the Left, and the Bason of it was so much dilated, that one might eafily thrust Two Fingers into it. Perhaps this Dilatation of the Pelvis was the Occafion, that as foon as the Stones were bred in the Kidneys, they presently slipt into the Bladder, and fo fprung out from thence; which our Excellent Friend had frequently own'd to me to be a Matter of Fact. In the Bladder, we found a little Stone, that had descended thither Four Days before the Invasion of the last Apoplectick Fit, and by its Descent exasperated his last Vertigo's. The rest of the natural Viscera were very well condition'd.

When I open'd his Head, I found, in the Cavity of the Right Ventricle of the Brain, an Extravalation of about Two Pints of black clotted Blood, which was the Cause of his Apoplexy and his Death. In the Lest Ventricle, we found about an Ounce and half of yellowish Water, Observations, &c.

with a finall Quantity of little Grains of Sand mir'd with it. The Blood-Veffels of the Brain were dilated, and broke on all Hands. The whole Compass of the Dara Mater adher'd tenacionsly and preternaturally to the Cranium. And this is the Sum of what I observed in diffecting his Corps, Dec. 7. 1694.



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APPENDIX

OF

The APOPLEXIES that were almost Epidemical, in the Tears 1694 and 1695, at Rome, and all over Italy.

OR these Two last Years, (I mean 1694 and 1695,) the Apoplexy has fwept of great Numbers of People, both in this City. and all over Italy; and the fatal Effects of this Disease were so frequent, that they alarm'd even the Healthful with Apprehensions of sudden Death. The Cause of this Epidemick Apoplexy is justly imputed to the unufual Constitution of the Westher in those Years. The Summer of 1693 was so extream hot and scorching, which was follow'd by nipping cold Weather, in the Beginning of 1694, and contrary to the Custom of Italy, with a rigid Frost, Snow and Ice. Campania di Roma and Puglia, which are feldom fubat to Snow, were then cover'd with it to the Heighth of a Cubit. The Summer after that was much hotter than the former, infomuch the

for Five Months together there was no Rain. About the Beginning of October, it began to be wet Weather, and continued such with a Southerly Wind to April 1695, and that to fuch a Degree, that so much Rain was not seen to fall at one Time within the Memory of Man. After Fifteen Days of continued Rain, perhaps we had Two Days clear Weather, which were follow'd by heavier Rains than what went before. After this uncuftomary Weather, the abovemention'd Apoplexies display'd their Rage, and perhaps some Part of the Epidemick Illness was owing to the Universal Grief, and Domestick Care, occasion'd by such calamitous Times; all Europe being at the fame Time engaged in a sharp War, the like of which has scarce been heard of fince the Foundations of the Universe were laid. So many Cities were raz'd and burnt, so many Thousands of Men slain, all Commerce disturb'd, and the Avenues of Peace block'd up, that the strongest Heart could scarce bear the Thoughts of it.

Further: These Epidemical Apoplexies might be in seine measure promoted by the malignant Steams rais'd by so many Earthquakes as staly has selt from the Year 1687 to this very Day. And Seneca is of the same Mind, that Apoplexies may proceed from such subterraneous Vapours. See his Nat. Quast. Cap. 27. Naples sustain'd the first Shock in 1687, but without any considerable Damage. It selt another Shock in June 1688, which not only shatter'd many Houses in the City, but level'd with the Ground many adjacent Towns. At the same Time, Benevento was almost bury'd a Rubbish. The ensuing Years, several Towns of half trembled with Earthquakes, particularly trembled.

of the Adriatick Sea, in the Territories of the Pope, which fustain'd considerable Damage th last Year: Calabria and Sicily were visited the fine City of Calania was bury'd in Ruine that at this Day there is nothing of it to be feen. Messina had several Houses shatter'd; and a great many Towns in Sicily were quite over turn'd. This Year the Earthquake was fele Venice, and Padua, and the adjacent Towns. very last June, of the Year I now write in 1695, Bagnorea, a City of St. Peter's Patrimon standing at the Distance of Fifty Miles from Roma was quite laid all together in Ruins by an Earthquake; and fome Shocks were felt in the nei bouring Towns, especially Viterbo: The Earth open'd in several Places, and the best Part of Ten Towns were bury'd. Nay, all Europe was fenfible of the Shock of the Earthquakes of thefe Years. In 1691, the Plague invaded Puglia, and fwept off great Numbers of the Inhabitants: And some Places were pinch'd with Famine.

These, and such other Accidents, usher'd in the stal Apoplexies that rage still to this December, 1695, in which I write. 'Tis needless to insist on the Cure of Apoplexies in general, in regard I have treated of that Subject above, in the First Book of my Pradice, Chap. 9. S. Of Apoplexies Besides, I design to speak more particularly to that Head, in a peculiar Treatise that must shortly see

the Light.

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